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ABSTRACT

This report examines the state of higher education in Sub-Saharan Africa, focusing on issues of interest to philanthropic organizations seeking to assist African colleges and universities. Chapter 1 discusses the impoverished state of most African universities, due largely to economic and political decline at the national level, as well as opportunities for change and improvement, especially in South Africa. Chapter 2 looks at the work of the African Association of Universities and other representative bodies. Chapter 3 describes government-university relations, university governance, and student affairs, concentrating on the problems that African universities face in these areas and possible solutions. Chapter 4 addresses university management, discussing ways to reduce costs and enhance revenues. Chapter 5 examines research opportunities, postgraduate studies, staff development, academic publishing, library development, and information technology. Chapter 6 reviews research on higher education in Africa. Each chapter includes general and specific proposals for the improvement of higher education in Africa, including specific areas of need that can be addressed by donor organizations. (Contains approximately 180 references.) (MDM)

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A CONSULTATION ON HIGHER EDUCATION IN AFRICA

A Report to the Ford Foundation and the Rockefeller Foundation

Trevor Coombe
Department of International and Comparative Education
Institute of Education, University of London

January 1991

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February 5, 1991

Dear Colleague:

In June, 1990, concerned about the many challenges confronting African higher education, the Ford and Rockefeller Foundations commissioned a review of issues facing African universities, governments, and donor agencies concerned about higher education. This review was carried out by Professor Trevor Coombe, former Dean of the College of Education at the University of Zambia, now at the Institute of Education at the University of London. Between June and September, Professor Coombe met with some 300 university leaders, government officials, researchers, teachers, students, and donor agency representatives in Africa, Europe and North America. His exceptionally thoughtful report was presented in December to the meeting of the Higher Education Working Group of the Task Force of Donors to African Education convening at the Association of African Universities headquarters in Accra.

At the request of those attending that meeting, we are pleased to make copies of the report available to the many leaders, universities, donors, students and researchers who contributed to it and to those who might find it useful. We are deeply grateful to the participants in this review. Additional copies of the report can be obtained from the Office of Reports, the Ford Foundation, 320 East 43rd Street, New York, New York 10017, USA. We hope that it will stimulate wide discussion and will serve as a call to action for all those concerned about African education. We would welcome comments and corrections to any statements in the report.

Sincerely,

Joyce Moock
Associate Vice President
The Rockefeller Foundation

John D. Gerhart
Director
Africa and Middle East Programs
The Ford Foundation

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A Report to
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Institute of Education University of London

January 1991

PREFACE

This report has been prepared for the Ford Foundation and the Rockefeller Foundation. The commission was initially made by the Ford Foundation, which has been engaged for some time on an internal review of its program of support to higher education in sub-Saharan Africa. The consultant was asked to recommend a strategy which might be pursued by the Foundation, and/or other donors, to strengthen higher education in Africa, particularly at the university level.

The reference to other donors took into account the establishment of a Working Group on Higher Education by the Task Force of Donors to African Education (DAE) which the World Bank has been instrumental in assembling. The Ford Foundation has made it possible for the Bank to appoint a higher education specialist to coordinate the Working Group's activities for a two year period. It was decided that the present report should be made available to the Working Group for discussion at its next meeting. This was done. The meeting took place in Accra in December 1990, hosted jointly by the Working Group on Higher Education and the Association of African Universities.

The Rockefeller Foundation had also been reviewing its support for African higher education. After discussions between officers of both foundations in Africa and New York, it was agreed that the sponsorship of this study would be shared. The Rockefeller Foundation has a special, but not exclusive, interest in strengthening quality research and graduate education in Africa, particularly in the sciences, technology, and related social sciences. It is concerned about the relative capacity and advantage of African universities, compared with research institutes and networks, in sustaining high-level research and postgraduate education.

The draft terms of reference asked the consultant to pay particular attention to the following areas of activity:

- research on higher education including student and faculty demography, the relationship between higher education and employment, etc.;

- the governance and administrative management of universities, including training programs for higher education administrators;

- the financing of higher education, including relations with ministries of finance and education, the creation of donor consortia, the creation or strengthening of development offices, income generation, etc.;

- the intellectual life of the university, including the development and retention of faculty, and such related

questions as publishing, research funding, library development, outside consulting and study, affirmative action, and academic freedom.

The consultant was advised to 'seek the opinion of African educators, policy-makers, private sector opinion leaders and students' about the value of donor support to 'strengthen African higher education' in these or other areas, and in so doing to contact the Association of African Universities and the major regional and sub-regional research organizations and networks. Likewise, the consultant was asked to ascertain what research on African higher education was being carried out on these questions, and to discuss the issues with other donors interested in higher education.

Finally, the consultant was asked to recommend to the foundations and other interested donors 'practical intervention strategies' aimed at addressing these and related issues. Where appropriate, the consultant should identify intermediary organizations through which sustained attention to higher education issues in Africa could be directed.

In subsequent discussions between the consultant and the foundations, it was made clear that the report should be brief and pragmatic, not a formal research study or an inventory of donor activities in higher education in Africa.

(Although most of these concerns have been addressed in the report, the consultant has honored the spirit rather than the letter of the terms of reference.)

In the light of the time available, and other considerations, it was decided to restrict the coverage to Anglophone sub-Saharan Africa, excluding South Africa. A sample of African countries, universities, research organizations, university NGOs, multilateral agencies and interested donors was chosen in order to achieve a reasonable cross-sectional coverage.

Since the consultant was committed to another assignment in Zambia in September, it was decided to undertake the bulk of the fieldwork between July 10 and August 29, 1990. During that period, visits were made to New York, Washington, Ottawa, Paris, Bonn, London, Dar es Salaam, Nairobi, Harare, Accra and Lagos.

The consultant was able to attend as an observer the meetings of the expert group on the Commonwealth Higher Education Support Scheme at the Commonwealth Secretariat in London in June, the meeting of the Kenya Committee of Vice-Chancellors with the visiting World Bank Education Sector Preparation Mission in Nairobi in August, and the sub-regional workshop on Cost Reduction and Cost Recovery in African Universities sponsored by the British Council in Lusaka in September. The report has also benefited from the addresses and discussion at a one-day conference on Higher Education in Africa in the '90s convened on November 9 by the Institute of Commonwealth Studies of the University of London and the Royal Africa Society. The agenda of each meeting was highly relevant to this study, and the invitations to attend the meetings are greatly appreciated.

An early draft of the report was presented to the Ford Foundation's Africa and Middle East Program Review meeting in Lagos on October 29, 1990, and a revised draft was presented to the second meeting of the DAE Higher Education Working Group in Accra on December 13, 1990. Each presentation was followed by a lively discussion, which has been taken into account in the final version of the report.

The consultant's first debt of gratitude is to those in African governments, universities, scientific academies, research institutes and networks, in international university associations, intergovernmental organizations and donor agencies, who received him in the course of this consultation. Warm thanks are extended to all who shared their time and expertise so graciously and offered such frank and helpful advice.

The staff of the Ford Foundation, New York, particularly Elisa Scatena and Magdeleine Blachere, have been unfailingly helpful. Faith Coleman's expert assistance in the Ford Foundation Archives is gratefully acknowledged.

Most of the detailed arrangements for the African itinerary in August were made by the Rockefeller Foundation office in Nairobi and the Ford Foundation offices in Harare and Lagos. The consultant acknowledges with gratitude the exceptional helpfulness, as well as the professional information and advice on the terms of reference, of David Court (Rockefeller Foundation), Diana Morris, Peter Fry, Michael Chege and Mora McLean (Ford Foundation) and their colleagues; also of Professor Luta Maliyamkono, Executive Director of ESAURP, Dar es Salaam, and his staff, who made the arrangements there; also of Professor Donald Ekong, Secretary-General of the Association of African Universities, for his practical assistance and generosity with his own time and wisdom in Accra; and of William Saint, latterly of the Ford Foundation and now Higher Education Specialist in the Africa Technical Department of the World Bank, for his help with the program in Washington and his support and colleagueship before and since.

The author acknowledges the helpful comments on earlier versions of the report of David Court of the Rockefeller Foundation, William Saint of the World Bank, Kenneth King and Alison Girdwood of the University of Edinburgh, and John Theakstone of the British Council.

The professional and technical support of Carol Coombe of the Commonwealth Secretariat have been invaluable.

The past and present contributions to African higher education and research of the Ford Foundation and the Rockefeller Foundation are highly valued in Africa, and the consultant's passage was smoothed by being able to travel under their colors. A final word of gratitude is therefore due to Kenneth Prewitt and Joyce Lewinger Moock of the Rockefeller Foundation, and Susan V Berresford, Peter Stanley and (especially) John Gerhart of the Ford Foundation, for offering this assignment and backing up the invitation with challenging advice and logistical support.

It remains to be said that neither the Ford Foundation nor the Rockefeller Foundation, nor any of my informants, nor those who have been kind enough to comment on my drafts, have responsibility for the content of the report, which rests with the author alone.

ABBREVIATIONS

AAS	African Academy of Sciences
AAAS	American Association for the Advancement of Science
AAU	Association of African Universities
ACU	Association of Commonwealth Universities
ADIAP	African Dissertation Internship Awards Program (Rockefeller Foundation)
AERC	African Economics Research Consortium
AESAU	Association of Eastern and Southern African Universities
AGRICOLA	Database in Agricultural Sciences
ANSTI	African Network of Scientific and Technological Institutions (UNESCO)
ATOLL	Association of University Teachers of Literature and Language
CHE	Commission for Higher Education (Kenya)
CHESS	Commonwealth Higher Education Support Scheme
CICHE	Committee for International Cooperation in Higher Education (British Council)
CIDA	Canadian International Development Agency
COMPENDEX	Database in Engineering Sciences
COREVP	Conference of Rectors, Vice-Chancellors and Presidents of Universities in West Africa
CVC	Committee of Vice-Chancellors (Nigeria)
DAAD	German Academic Exchange Service
DAE	Donors to African Education
DSE	German Foundation for International Development
EC	European Community
ECA	Economic Commission for Africa (United Nations)
ERIC	Database in Educational Sciences
ESAMI	Eastern and Southern African Management Institute
ESAURP	Eastern and Southern African Universities Research Programme
FINNIDA	Finnish International Development Agency
GIMPA	Ghana Institute of Management and Public Administration
GTZ	Agency for Technical Cooperation (Germany)
HEDCO	Higher Education Development Cooperation (Republic of Ireland)
IAU	International Association of Universities
ICIPE	International Centre of Insect Physiology and Ecology (Nairobi)
ICSU	International Council of Scientific Unions
IDA	International Development Association (World Bank)
IDRC	International Development Research Centre (Canada)
IFLA	International Federation of Library Associations
IFS	International Foundation of Science
IIEP	International Institute for Educational Planning (UNESCO)
IUC	Inter-University Council of East Africa
JAMB	Joint Admissions and Matriculation Board (Nigeria)

MEDLINE	Database in Medical Sciences
MIS	Management Information System
NAS	Nigerian Academy of Science
NASO	Network of African Scientific Organisations
NGO	Non-governmental organization
NORAD	Norwegian Agency for International Development
NUC	National Universities Commission (Nigeria)
NUFFIC	Netherlands Universities Foundation for International Cooperation
OAU	Organisation of African Unity
ODA	Overseas Development Administration (United Kingdom)
SADCC	Southern African Development Coordination Conference
SAREC	Swedish Agency for Research Cooperation in Developing Countries
SIDA	Swedish International Development Authority
SLB	Students Loans Board (Nigeria)
UNDP	United Nations Development Programme
UNESCO	United Nations Educational Scientific and Cultural Organisation
UNU	United Nations University
USAID	United States Agency for International Development

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1 A PERSPECTIVE ON AFRICAN UNIVERSITIES

Introduction

The most serious risks run by a report such as this are over-generalization and over-simplification. They are invited by the nature of the assignment, with its inbuilt assumption that sub-Saharan Africa is an identifiable region with common characteristics, including a higher education sector in crisis. No doubt this is so, but another view must be kept constantly in mind.

Sub-Saharan Africa is endlessly diverse. Conditions vary across countries, within countries, and within universities. The condition of individual universities depends upon such broad factors as the presence of civil peace, the wealth and resilience of the national economy, the nature of the national political culture, the policy environment of higher education, and the scope and quality of external assistance. It also depends upon such specific factors as the vision, imagination, courage and managerial skill of Vice-Chancellors and their colleagues, the tenacity with which academic staff members are able to sustain academic values against the odds. the threshold of self-sacrifice among university people, the level of alienation or identity between students and the political leadership--and whether the water system works, power supplies fail, or roofs leak.

A general conclusion from this consultation is that it would be unwise for external agencies to write off the African universities as hopelessly and irretrievably in decline. It would also be unfair, considering that the main conditions which have brought the universities low have not been of their own making. Situations vary so greatly, country by country, university by university, faculty by faculty, and department by department, that a universal judgment would be simplistic and absurd.

The damage sustained by under-resourcing the universities during the years of economic decline, in almost all sub-Saharan African countries, has been massive and in some areas debilitating. In short there is a crisis. But crisis does not invariably mean collapse. The universities have shown resilience. Despite the brains that have drained out of them over the years, and the compromises they have been compelled to make with their own standards, the universities remain great national storehouses of trained, informed, inquiring and critical intellects, and the indispensable means of replenishing national talent. They have considerable reserves of leadership and commitment on which to draw. Impoverished, frustrated, dilapidated and overcrowded as they may be, they have no substitutes.

A general recovery in the quality of teaching, learning and research throughout the region needs a long-term perspective, but long-term requirements should not deter immediate action. There

is plenty of evidence that the morale of university communities is highly sensitive to well-conceived, constructive action in support of academic values, such as enabling academics to gain access to the tools of their trade, and the means of academic communication. Even major improvements in the physical environment of universities, equally vital for students and academic staff, can be made quite rapidly, given the provision of funds for repair and maintenance, and essential furniture and equipment, as some governments have recently discovered.

The condition of the universities

One of the abiding impressions of this consultation is the sense of loss, amounting almost to grief, of some of the most senior professors in the older African universities as they compare the present state of their universities with the vigor, optimism and pride which the same institutions displayed twenty or thirty years ago. It is not just the universal regret of age at the passing of youth, nor the sad awareness that a generation of unique academic pioneers has almost run its course. It is also the grim knowledge that the nature of the university experience today is profoundly different for many teachers and students, so different and so inferior that some wonder whether it can rightly be called a university experience at all.

A student describes a day in her university life. She rises before first light, rolls up her sleeping mat and leaves the room in the hall of residence which she shares with eleven others. The room had been furnished for two students in the early years, then bunks were installed to permit four to be housed. These days, four students are official occupants and pay the rent. To share the cost, they sub-let sleeping space to eight squatters. There is a water crisis on campus, not an uncommon event. It is our student's turn to collect water. She takes her bucket and walks to join the queue at the standpipe. On a bad day it is hours before she is able to fill her bucket and return, to wash and make tea. She decides whether to take her single daily meal in the morning (one zero zero), noon (zero one zero) or evening (zero zero one).

She goes to class where it is standing room only. She is late and joins others who crowd at the windows, looking in. It is difficult to hear the lecturer, or see the board on which he is writing notes. Those who cannot see do their best to copy from the notebooks of those who can. After class, if the money is there, a handout can be purchased from the lecturer. It is his sideline, a supplement to his salary, which has been eroded by currency devaluation and inflation. The lecturer recommends readings, but the titles are not in the library.

These scenes from the life of one African campus cannot be taken to represent all, but the elements are familiar enough in most universities: the student accommodation squeeze, the failure or decline of municipal services, the financial privation of students, crowded classrooms, teaching reduced to chalk and talk, teachers who must hustle for additional income, libraries whose

acquisition votes have been nominal for years on end.

The African academic community knows intimately what the deterioration of their universities has cost. Few African university people dissent from the view that there is a crisis in African higher education, and that it is long-running and shows no early sign of abating.

A minister of higher education talks about the strangulation of the universities in Africa, of universities being given a starvation diet. A Dean's monthly take-home pay in one university translates to US $60. Monthly salaries often do not last more than a week or two. Academic staff make ends meet by growing bananas, keeping chickens or zero-grazing cattle in their backyards, or by coaching students privately after hours, or taxi-driving, or trading, or a combination of these. A professor remarks matter-of-factly that it is difficult to find some of his staff in the afternoons because they are on their second jobs. Consultancies are prized because they pay well, often in forex, and--with some reservations--they are professionally acceptable and may even be academically challenging.

Repeatedly one is told that the universities' gravest problem is to retain able staff. Young lecturers leave because they are unable to advance themselves by research and publication, or by acquiring advanced degrees. Senior lecturers and professors have obligations to growing families, and may have suffered sharp declines in real income and status. Many can exploit their seniority and academic records in the labour market, at home or abroad.

However important salary levels are, university people do not say much to a visitor about their own financial privations, and usually only if prompted. What they will talk about with animation is their inability to do the job they are trained to do, hired to do and want to do. Many African academics suffer a loss of professional self-esteem. Of all the casualties of the years of austerity in the African universities, the damage to morale is particularly serious.

There is much evidence of selfless devotion and perseverance, from the bottom to the top of the academic ladder. Many academics make necessity the mother of improvisation, redouble their effort and cope as best they can with the hardship and frustration of contemporary African academic life. But one should not romanticize the scholarly community in Africa. Inevitably, energy is sapped, compromises are made, and productivity falls. The extreme erosion of working and living conditions on many campuses has driven some academics to seek refuge in cynicism, venality, actual or psychic truancy, dereliction of duty and opportunism. The wonder is, when so many have to hustle to survive, that serious intellectual and pedagogical activity persists even in African universities which have been most hard pressed.

This is a community whose intellectual frame of reference is instinctively international as well as local, which in part explains their insistence on the necessity of communication with university colleagues abroad, and maintaining currency with

international scholarship. Much of the malaise from which many African scholars suffer arises from the sense of being out of contact, and of being denied the means to be up-to-date as scholars and teachers. Many African university people, who are already isolated by geography and national borders, dread the prospect of falling irretrievably out of communication with the international academic system.

They have suffered for years the shortage or absence of foreign exchange for library books and journals, personal subscriptions to international scholarly associations, up-to-date scientific and computing equipment for teaching and research, spare parts, reagents and other consumables including paper, reprographic facilities, travel to conferences, professional contact visits, research attachments and sabbatical leaves. The proliferation of electronic databases and networks, and the conversion of many international bibliographic and research abstract services to micrographic and CD/ROM technology, seems about to relegate most African universities to a communications and information backwater. Another sign of the separation of Africa from the international academic mainstream is the relative lack of investment on the continent in emerging areas of knowledge, such as telecommunications, biotechnology and materials science.

The decline in the real value of university budgets, increase in undergraduate student numbers, increase in academic staff turnover, and deterioration in research facilities including library support, have put postgraduate education in African universities under severe pressure. The number of admissions or completions or both has fallen. At the same time the need for local postgraduate training has substantially increased, both to meet specialist manpower requirements in the economy at large, and especially the replacement and expansion demand for teachers in the higher education system itself. Higher degree study abroad has become less feasible as its costs have increased while the number and value of local scholarships, using scarce foreign exchange, have shrunk. Donor support, however significant, represents a fraction of overall requirements.

Few disagree that the intensity of the university crisis in Africa has been brought about by the combination of prolonged recession in most national economies and a surge in public demand for higher education places as opportunities for secondary education have broadened and the rate of new job openings has declined. Since all public universities are funded overwhelmingly by the public purse, and both secondary and higher education admissions are regulated predominantly if not wholly by the state, the African governments have a unique responsibility for managing the key factors on both sides of the university equation. Inevitably, the relations between governments and universities, never easy at the best of times, have been extremely difficult in these times of crisis.

On many campuses the external pressures have ruptured the fragile sense of community within the universities. Many university administrations, unable to extract anything like adequate budgetary cover from government treasuries for their normal operations, and unable to control the level of student intake, have

become targets for the daily campus frustrations as well as the political anger of their student bodies, and have forfeited much of the goodwill of the academic staff.

One highly respected administrator on the government side described how the economic decline had led to a chaotic situation in the universities of that country. On the one hand, the absence of agreed norms of resource allocation had evoked a wholly self-interested response from each institution, with heavy competition for the available funds and no system to manage them. On the other hand, the universities could not comprehend that an era had ended, and lamented past glories like nobles marooned in their crumbling castles as feudalism declined in Europe.

The imagery is graphic, the analysis might be contested, but the notion of a university community traumatized by the direct and indirect effects of economic stringency is not far off the mark. As with all traumas, time has been needed for the universities to come to terms with what has occurred, and to understand (as a head of department put it), that the crisis is not short-term but structural. It is equally true, if not more so, that most governments have been slow to analyze the situation and, together with the universities and others, devise appropriate policies for the planning, management, funding, rehabilitation and development of the higher education sector.

A senior African international civil servant, reflecting on these matters, remarked that one has to be a very optimistic person not to despair. But it is important, he said, to study the universities which had maintained a high level of academic staff morale, staff retention and scholarly output under exceptionally adverse circumstances. Overall, despite everything, he remained impressed by the depth of enthusiasm and commitment of the African academic community. They deserved not to be abandoned.

The evidence from this consultation supports his viewpoint. Despite the inroads of the crisis in universities, the African academic community of university teachers and researchers maintains an impressive degree of pride and professional self-awareness. All in all, most of the vice-chancellors and senior academic administrators encountered during this study display impressive vigor and determination. They manage their institutions in a political, social and financial environment which would baffle and deter the most seasoned of first world academic leaders, with a lack of infrastructural support which more privileged administrators would find incredible and intolerable, and for a pecuniary reward which they would consider derisory. Nevertheless, many African university managers and their academic colleagues have responded to adversity with a remarkable, almost buoyant creativity, and are experiencing a rebirth of hope.

In a university with chronic resource shortages and a notorious brain-drain problem, a former Dean of Engineering remonstrated politely as a visitor commiserated with him over the decline in the quality of education. It had been very difficult, he conceded, but his faculty had been committed to maintaining a high standard of undergraduate education, even if it meant sacrificing some research time, and by and large they had succeeded. The

test was the level of satisfaction of the engineering industry, and the faculty had retained the industry's confidence and practical support, both materially and in terms of training placements. The faculty's international links were intact and continued to provide an invaluable infusion of staff and equipment, while permitting exchange visits by local academics. Academic staff were under pressure, but they had stayed.

On another campus across the continent, a Vice-Chancellor described how he had taken office five years ago, when the national economy had hit rock-bottom and the university was in terrible shape. Despite everything, there were exceptionally good people on the ground and his first priority therefore was to restore morale. He has been tackling the problem on three fronts. First, opportunities have been provided for academic staff to go out and come back, especially for scientists to visit top-class laboratories and work with top-class colleagues. Second, he has trawled donors for books, journals and equipment to rehabilitate several departments. Third, he is attempting with his colleagues to revive postgraduate programs, persuading government to switch more of its scholarships from study abroad to study at home, and assessing departmental capacity for doctoral work, whether wholly at home or split-site.

This Vice-Chancellor is working within a national higher education policy which has been in evolution for several years and which is overseen by a national implementation committee on tertiary reform. Among the keynotes are agreed planning norms, agreed budgetary procedures, and rationalization of academic programs among the three national universities. The path is not smooth, but the direction is forward.

This cameo illustrates the proposition that African governments have not given up on their universities, and African universities have not given up on themselves. It is true, and extremely welcome, as the Secretary-General of the AAU has remarked, that there is a high level of international consensus about the main elements of a university reform program. The difficulty lies within each national political arena, where crucial questions have to be formulated and resolved, on matters such as the priority accorded to human resource development, priorities within the education sector as a whole, rates of access to higher education, the balance of university and non-university systems and their relative rates of growth, the labour market absorption of higher education graduates, the significance and priorities of national research and postgraduate education, the funding of higher education, and the executive management of higher education policies. These are hardly new questions, either within Africa or elsewhere, but in Africa they are having to be formulated afresh and with urgency within the framework of national macro-economic adjustment policies, especially budgetary and public employment policies.

Some universities have ridden the economic storm better than the majority, but the majority are still in considerable trouble, and many are in profound distress. Some governments and universities are already well into the implementation of a comprehensive, phased reform program. Some have taken the tentative first

steps in policy change, while among others the analysis may have barely begun.

This is therefore a pivotal period in African university development. It happens to coincide with a seismic shift in the balance of political forces in sub-Saharan Africa. It remains to be seen whether or not the democratization debate results in radical and permanent changes in the political topography of individual states, or merely causes tremors and opens fissures. What is beyond doubt is that the universities of Africa, to a greater or lesser extent, had been actors in this debate well before it had formally been declared open by many state authorities, and they are certain to become more involved, in a variety of ways, as the debate proceeds. Not for the first time, some African academics are already paying a heavy price for their democratic convictions.

Not only are the universities, as major national institutions and citadels of opinion, bound to participate in the political debate, but it would be surprising if the policy discussions on university reform or restructuring were to be kept separate from the wider political issues. Among the questions already being raised on African campuses is the implications of political democratization for the governance of universities, both externally and internally. Another question, which is even more speculative, is how the management of public demand for higher education might be undertaken under more liberal and competitive political systems.

The crisis in African higher education mirrors the deep crises in national economies and national political systems. Not surprisingly, many African academic people are impatient with a merely technical response to the university crisis and argue the need for a re-examination of the developmental mission of African universities in the 1990s.

Most of this report discusses issues which are directly related to the mission of African universities, but there is no systematic treatment of the debate and no attempt to construct a new model of African university development. A single model is in any case inappropriate. In fact, phrases like 'the African university' are wide of the mark. Diversity reigns in the African university community, as in African political economies, and what is needed are complex rather than unitary models of African university systems and their roles in the rehabilitation, reconstruction and development of their communities, countries and region.

Donor policies and African dialog

Donors to African higher education, especially those which wish to help governments and universities address the structural problems of university systems, are operating on important and sensitive terrain. They are clearly under scrutiny and they have an obligation to declare their own motives and interests explicitly so that the common ground may be found and acted upon. In

the era of democratization, an important body of African academic opinion believes that donors must be pro-active in support of civil rights, civil liberties and intellectual freedom in Africa, not only at the verbal level but in monitoring the actions of governments and university administrations, and making clear that their support is conditional on the maintenance of internationally sanctioned human rights, fundamental freedoms and due process of law.

The Ford and Rockefeller Foundations have earned high prestige for their contributions to the early physical development of many African universities, their support over many years to academic staff development and research, and for the high level of professionalism with which their programs are administered. The foundations are regarded by many African academics as associates and adjuncts of the university community in Africa, and enjoy remarkable confidence and trust, but this is not given uncritically. Their consideration of a more active role in strengthening the university systems is welcomed, provided that they take sufficient time to study the situation, and work out their decisions in dialog with their African partners, making a careful identification of the areas where their support is likely to be most acceptable and effective. Then, provided that the right policy environment is created by African governments, the foundations' contribution to restoring the health of the African university system could be significant even if the additional funds they are able to deploy are modest.

On the whole, the current multilateral, bilateral and non-governmental donors have a high degree of acceptability in African university systems. This should not obscure the fact that there is a good deal of anger and perplexity among many African university people, including some of the most senior, about the real intentions of the donor community as a whole towards the higher education sector and universities in particular. During the 1980s, African university managers and government policy-makers experienced a strong sense of donor ambivalence towards universities' role and needs, which was expressed most markedly in research reports and policy documents from the World Bank. The mobilization of huge rhetorical resources by the donor community in constructing the international platform at Jomtien in March 1990 to campaign for basic education for all, has reinforced the anxieties of the African university community.

As is well known, the World Bank's financial pre-eminence and policy influence, and its identification with structural adjustment and conditionality, make it the donor, or lender, that people love to hate. The Bank is a vast and complex intellectual as well as financial institution, in which issues and policies are disputed and factions and fashions rise and fall. Few African academics have the opportunity to engage at first hand with the World Bank on its home turf and probably fewer learn the dynamics of its political economy. Despite the many changes over the past decade in the Bank's operational policies, including its consultative procedures, the pressure of the World Bank Group's financial and macro-economic policies and the Bank's specific involvement in adjustment programs in the education sector, are perceived by many African university people as oppressive and by

some, including university leaders, as hostile to the interests of university development. It may be unwise to exaggerate this sentiment, but it would equally be unwise to dismiss it. The Bank is deeply involved in African education, and it is not in the interests of Africa's universities for the Bank's university operations to occasion serious unease, if not anger. Nigeria's Federal Universities Development Sector Adjustment Operation (1990-94) is the Bank's flagship investment in the university sector in Africa. Elsewhere in the report, a proposal is made for a thorough-going research study of the entire project, from inception to completion. Such a study should illuminate dispassionately the troubled, or at least problematic, relationship between the Bank and one of the largest university systems in Africa and offer lessons to all concerned.

There appears to be a need for donors, in consultation with the African university community, to re-think and re-state their individual and (if it can be achieved) collective position on support to African university development. This could run parallel and contribute to the reconsideration of African university goals which the academic community may itself already have engaged on. Donors to African education need to dissociate themselves as emphatically as possible from a dichotomous and adversarial model of educational needs, which in its crudest form appears to pit the interests of universities against the interests of basic education. A clear and unqualified recognition of the mutual dependence of the various sectors of the education system does not in itself solve the perennial problems of priorities and resource allocation, but it is a prerequisite to constructive discussion about them.

There is every reason to believe that the coordination of activity among donors in support of higher education should be pursued. It is true that some African university people fear the influence of a donor cartel. If donor coordination were organized in such a way as to maximize the donors' interests at the expense of the African education systems, such fears would be justified. African critics should be mollified by the difficulty with which the present minor levels of donor collaboration have been achieved. There is unlikely to be a serious level of opposition to coordinated donor action provided the cardinal principles of full disclosure, dialog and mutual respect are observed; in fact quite the contrary. If donor coordination leads to an improvement in information, a rationalization of aid procedures, and a more effective deployment of resources, recipients will be well pleased.

The recent efforts at donor coordination following the publication of the World Bank's Education in Sub-Saharan Africa paper are not well known in the African universities. Not surprisingly, given its slow start, the existence of a Donors to African Education (DAE) Working Group on Higher Education was news to all but a few. Following the successful second meeting of the Working Group in December 1990, co-hosted by the Association of African Universities in Accra, it is likely to become better known.

More seriously, perhaps, there is little evidence in African countries of a formal arrangement for government consultation with all education donors and the coordination of donor support to education at the sector level, or even at the sub-sectoral level of higher education. Several universities had convened ad hoc conferences of donors in order to share information about needs and priorities and invite pledges of support. These were considered to be useful initiatives which had borne fruit, even if not as much as had been hoped. It is possible that very few universities indeed have set up donor support groups as a permanent mechanism of consultation, planning and review, but the idea was considered interesting and worth further discussion. It was known by some that international research institutes, like ICIPE in Nairobi, have a well-developed donor support group system from which much could be learnt.

This report places strong emphasis on the donor support group model, and suggests some ways by which it could be developed at the regional, sub-regional, national and institutional levels.

Change in South Africa

One final point of general importance must be mentioned before specific proposals are discussed. This is the effect on the African universities both north and south of the Limpopo of the dismantling of apartheid laws in South Africa and a political settlement there. It is, of course, common knowledge that South African universities, especially homeland universities, are already part of the wider African academic labour market, even if in a semi-surreptitious and restricted way. As the barriers come down the attraction of South Africa's large, varied, troubled, uneven but dynamic university system for African academics will be substantial. Some heads of departments fear a catastrophic loss of staff. On the other hand, many South African academics are likely to wish to work elsewhere in Africa. It is by no means too early for this matter to be studied thoroughly and dispassionately. The probable effects need to be anticipated so that if any action is indicated, it may be considered in advance by all parties concerned.

Along with such prudent anxiety is a sense of anticipation that a great academic resource for the African continent will be opened, with important implications for staff development, academic visits and exchanges, research collaboration, and technical assistance. Again, there is every prospect of a two-way flow of expertise and enquiry. It may not be premature for such possibilities to be studied and, as soon as it is judged politically acceptable, for exploratory missions to be undertaken so that effective channels of communication can be established.

The Association of African Universities, together with the Southern African universities, would seem to be in the best position to take the lead in these matters. Non-governmental donors with good political credentials and long experience of developmental support on both sides of the border are well placed to play a facilitative role in such openings to the south.

2 THE AFRICAN ASSOCIATION OF UNIVERSITIES AND OTHER REPRESENTATIVE UNIVERSITY BODIES

The AAU

There was universal support for the African Association of Universities, from the African academic community, from other international university associations, and from donors to African higher education. Under its present leadership, the organization has won respect for its capacity to articulate the interests and needs of its member universities, set an agenda for debate on university reform, and facilitate investigations of a range of important questions in academic planning and management.

If the AAU did not exist, it would be necessary to invent it. It is difficult to exaggerate the need for a continental body to represent and defend the interests of the African university community, especially at a time of unprecedented privation, when the fortunes of most African states are at a low ebb and their international influence is diminished. The AAU speaks for its members, and indirectly for the academic community of Africa, in the forums of the OAU, ECA, the Commonwealth and Francophone associations, and UNESCO, among others. It is bound to be an influential presence at meetings of the Working Group on Higher Education of the Donors to African Education. It has forged an interesting triangular alliance with the International Association of Universities and UNESCO, and collaborates with the ACU and the UNU.

Aside from its representational functions, the AAU manages a database and information clearing house on African universities, and has attracted donor support for the four-year Plan of Activities agreed by its General Conference. This includes a West African sub-regional project to reinforce scientific and technological capacity in the field of food and nutrition (funded by the EC); a survey of postgraduate training capacity in West and Central African universities with a view to sharing resources and developing complementary activities (funded by IDRC) in parallel with a similar IDRC-supported program in Eastern and Southern Africa; DAAD has promised follow-up support to the West African project if it is successfully appraised); a study of links between universities and 'the productive sector' (funded by IDRC); a project to review the curricula of African universities in development economics, and prepare and publish a collaborative multi-level textbook (UNDP/ECA); this project also has components to promote consultancy services and research networking in African universities; a major study of efficiency and cost-effectiveness in a sample of African universities (NUFFIC/IBRD); and collaboration with UNESCO in running a consultation and a workshop on strategic management for African Vice-Chancellors and Rectors. All items in this program are active.

The AAU also runs, these days on a small scale, a graduate fellowship program and an academic staff exchange program. It publishes the Directory of African Universities, AAU Newsletter and occasional reports and papers from its own press.

The association occupies offices and staff housing provided by the Government of Ghana in Accra, which also accords the AAU diplomatic status. The Government of Nigeria has provided an annual grant. Subscriptions from member universities denominated in US dollars comprise the regular funds of the association. The annual subscription is modest and has not been increased for several years, yet (because of devaluation or for other reasons) many universities do not pay. Consequently the AAU secretariat has not filled two vital posts and the very few staff in post are grossly overworked.

Proposals on the AAU

The establishment of a permanent donor support group for the AAU could be considered in discussion with the association and interested donors. The second DAE Working Group on Higher Education meeting in Accra responded warmly to the idea. The most pressing need is to enable the association to overcome its chronic deficit and achieve a stable framework for its core funding. To this end a management review by African consultants (such as GIMPA) could be considered, which among other things could examine the association's financial base and in particular the subscription policy and administration, and any other potential source of core funding, local or external.

Meanwhile, donors might consider an early grant to enable the vacant posts of Program Officer (Documentation) and Administrative Officer to be filled. The justification for a post of Director of Research could be established. Such an officer could exert quality control over the AAU's already wide-ranging research portfolio, and in future might have an important part to play in the coordination of a program of research on African higher education which is discussed below.

Other representative university bodies

There are other representative associations of universities in Africa whose activities are highly regarded in the sub-regions they serve and by the AAU and the ACU. They are the Inter-University Council of East Africa (IUC), a descendant of the disbanded University of East Africa, which is supported by the governments of Uganda, Kenya and Tanzania, and has a permanent office and staff in Kampala; the Association of Eastern and Southern African Universities (AESAU), which does not have a permanent office but whose current chairman is the Vice-Chancellor of the University of Zambia; and the Conference of Rectors, Vice-Chancellors and Presidents of Universities in West Africa (COREVP), which is serviced by the AAU secretariat.

Of the three, the IUC is a permanent organization with regular meetings of the heads of the member institutions. It has given birth to the East African Association of University Administrators, and sponsors workshops for the advancement of individual disciplines (for instance, a collaborative textbook writing project in Mathematics).

AESAU is emerging from a lean period after a highly active initial few years. In the interim the Network of Deans and Coordinators of Graduate Programs in the Eastern and Southern African universities has been established under IDRC sponsorship but without organizational affiliation.

By contrast the third conference of COREVP, West Africa, met recently and received a report of the Conference of Deans of Post-Graduate Education in West and Central African Universities, who had considered the AAU's draft consultancy study on postgraduate capacity.

The sub-regional bodies follow different principles of organization but have similar mandates, namely, overcoming the isolation of universities which are separated by great distances and national boundaries, sharing the experience and views on common problems of the senior officers of the universities, identifying fields of common interest, and attempting to pool or coordinate their universities' intellectual and physical resources for the common good. The emphasis on postgraduate cooperation and the emergence of networking activity among university administrators are particularly significant in relation to the continental priorities of the African universities.

The AAU has a benign view of these regional bodies, with which it maintains communication, if not organizational oversight. However, in the light of its own experience the Secretary-General cautions against proliferation, since representative university bodies must be funded principally by subscription, and subscription charges in forex are hard for most universities to meet.

Nigeria is a sub-region in all but name, and it too has developed a significant cluster of related representative associations. The Committee of Vice-Chancellors (CVC) is an independent body of independent means (via rental income) which represents the views of the university community to the government, and in doing so works in close relationship with the National Universities Commission. In turn the Committee of Registrars of Nigerian Universities, the Committee of Bursars of Nigerian Universities, and the Committee of University Librarians of Nigerian Universities attend to their professional business, work closely with the CVC and undertake studies for the CVC on commission from the NUC. A new body, the Committee of University Planning Officers of Nigerian Universities, has been inaugurated, in recognition of the priority, and statutory recognition, which the NUC has asked the universities to attach to this function.

In principle, representative bodies of this nature, whether in the large Nigerian national system, or on an international scale, have a highly significant role to play at a time of maximum

institutional stress and reform. They may act as a conduit for professional information and innovatory ideas, an investigative resource, a forum for collaborative action and rationalization, and as overseers of professional standards and best practice.

Proposals on other representative university bodies

The sub-regional bodies might consider it to their advantage to meet together to compare experience and reflect on their objectives and organizational requirements. The AAU might agree to play host to such a gathering. The experience of the Nigerian committees might well be of value to the meeting.

It would be presumptuous to anticipate what might come out of such a meeting, but it might be useful for the bodies represented to consider their long-term organizational role and the merit of developing a common pattern of organization in the sub-regions. This might make for a sensible degree of specialization, and encourage links between related professional bodies in different sub-regions. In such a scheme, the apex organizations of Vice-Chancellors would be in direct communication with the AAU.

Clearly the objective would not be to elaborate an unnecessary superstructure of organizations, but to reflect on the effectiveness of the present arrangements and consider how they might evolve. The consultative and developmental functions of all such bodies should feed back into qualitative improvement on the campuses of the member universities, as the intention is at present.

It would be mistaken to assume that all the Nigerian representative committees were as well-financed as the CVC might be. The Planning Officers, for instance, have had difficulty despite the status to which the NUC believes they are entitled. All such bodies are likely to have heavy work-loads in connection with the Federal Universities Development Sector Adjustment Operation (the IDA project). They might welcome consultation with interested donors.

There is a clear role for donors in helping to set up the consultations, if the bodies themselves so desire. What might transpire has to be left to the discussions themselves, but some donors might feel able to contribute to a support fund for the networking activities of the sub-regional organizations, and the establishment of a permanent office for AESAU.

3 GOVERNMENT-UNIVERSITY RELATIONS, UNIVERSITY GOVERNANCE, AND STUDENT AFFAIRS

Introduction

These are bedrock issues for African universities. The term 'government' is a misnomer in this context, because the university's relations with the state authority usually involve at least three important systems, political, bureaucratic and security. Each has several sub-systems, like the university itself. Moreover, the boundary between the university and state systems may be far from clear, either in law or fact, and transactions between the two may be affected by various cross-boundary coalitions of interest.

Nevertheless, at the risk of over-simplification, three aspects of the issue of government-university relations appear to be particularly important, and they too are inter-related. No doubt they have different weight in different countries. The first concerns the proper limits of state intervention with respect to the universities, the second concerns the manner in which the common business of governments and universities is conducted, and the third relates to the planning and budgeting function.

This chapter also discusses two matters ostensibly of internal concern to universities, namely governance (or the ordering of university decision-making) and student affairs. In fact, neither matter is distinct from the broader questions relating state and university--far from it. Each is high on the agenda of concern in African universities and has a major influence on whether the universities sink or swim.

Government-university relations

The proper limits of state intervention

The first aspect concerns the need to catalyze discussion on secularizing the university system, or de-linking it from the political and security regime, or, to put the issue more neutrally, establishing the proper limits of the state's interest in university affairs and the mechanisms through which it is expressed. It has come to the fore on campuses in different countries as a result of a variety of significant events, like massive increases in student intakes decreed by state authorities without adequate consultation, planning or resourcing, the activities of police and security agents and informers on campus, the banning of student and academic staff unions, the 'compulsory retirement' or jailing of maverick faculty members, and the expulsion or detention of students for their opinions.

This matter is no doubt an aspect of a wider debate on liberalization, constitutional restraint and respect for civil liberties, but the issue is also being formulated in terms of the health and vigor of the university as an institution. It was passionately argued, for instance, that the recovery of the universities was conditional on 'the taming of the state', that is releasing universities from arbitrary intervention by the executive power. The effect of politically-motivated decisions on admissions levels was particularly deplored, and considered by many to be the single most damaging influence on the decline of academic standards and morale. Another symptom of excessive politicization which drew fierce comment was the harassment and detention of students and staff members.

In many systems, the chancellor of the public university or universities is the head of state. Although this relationship may afford unique access by the university management to the executive arm of government, it has also been used as a pretext for intervention by the presidency in university affairs, often without consultation either with the ministry responsible for university affairs, or with the university itself. It is true that some such interventions have been benign. Many have not, but instead have put universities in the intolerable position of being dictated to or interfered with by their own titular heads, acting not in terms of authority conveyed by the university statutes, but by virtue of their presidential power. It is thus the arbitrary use of the executive power of the presidency in university affairs, just as much as the infiltration or overt oppression of the security apparatus, against which the universities seek protection.

The problem of state house-university relations is thus very much alive in African countries and alternative models, or means of moderating the relationship, are being sought. On one campus which had been closed after student demonstrations against poor conditions on campus, the university's post mortem panel was considering whether to recommend that the office of the president should appoint an adviser to the president on university affairs. In Nigeria, although direct action by the executive arm of government in the universities is not unknown, a different statutory relationship between the head of state and the federal universities has been developed. The universities have their own chancellors, often eminent traditional leaders, but the head of state is named by statute as visitor to each university, in which capacity the government is able to exercise a right of scrutiny over its academic, administrative, financial and physical affairs. In July 1986, five federal universities were investigated in this way. In July 1990, the NUC announced that the visitor had appointed visitation panels to assess the work of eight universities over the period 1975-85. The federal minister of education advised that their appointment should be regarded as part of the routine of checks and balances between the government as 'proprietor' and the universities.

Mutual comprehension and confidence-building

The second aspect of government-university relations concerns the

need, expressed by many university people, especially administrators, for a more effective dialog with government officials concerned with university affairs. The normal forums are considered inadequate because they are formal and limited to bureaucratic or budgetary decisions. One senior university administrator thought that civil servants simply did not understand 'what kind of an animal a university is', and the university had not yet had the opportunity to educate them.

In this spirit, the University of Zimbabwe administration, shocked by police action on campus, set up a liaison committee with the Ministry of Home Affairs to consider how a repetition could be avoided, and was organizing a seminar on university autonomy and academic freedom jointly with the Ministry of Higher Education, the Ministry of Home Affairs and student representatives.

As if to underscore the necessity of such arrangements for consultation and mutual confidence, new university legislation in Zimbabwe has in recent weeks galvanized a student march on Parliament, blocked by police, followed by a student bus convoy and demonstrations, industrial action by academic staff, and a diplomatic demarche by the university authorities to the government. Passions had been ignited over the very issues of government power over university affairs and the relations of university management with the state authorities and with their own academic constituency. These events have provided graphic testimony to the inherent volatility of the four-fold relationship between students, academic staff, university management and government, and indicate that there is a great need to persevere with initiatives aimed at building mutual comprehension and confidence.

Planning and budgeting for university systems

The third aspect of government-university relations concerns the determination and allocation of budgetary resources for universities. A number of intermediary bodies and other instruments have been created to handle it. The logic of intermediary bodies begins with the proposition that public universities require large resources for needs which are highly specialized. In order to protect the universities' interests and adjudicate between competing claims, a statutory body outside both the civil service and the universities is set up, to provide a bridge between the two. The body is staffed largely by university people so that the universities can make their case in the confidence that it will be understood and properly judged. The intermediary body becomes the advocate of the universities' needs before government. It also has the responsibility of consulting the universities and advising government on university policy, and interpreting policy, once decided, to the universities. It divides the budgetary cake between the universities, using the official policy priorities and planning criteria which are known to all concerned. The universities then receive their grants of public funds from the intermediary body, not the government, in order to avoid the suspicion of political bias.

This is the model on which the Nigerian National Universities Commission has been constructed over the past quarter-century. The Commission is a statutory body governed by a board of 33 members dominated by academics representing the main university disciplines, and including representatives of industry, commerce, government and the broader community. The secretariat is headed by an Executive Secretary (responsible to the Federal Minister of Education) who leads a professional staff establishment of 96 and supporting technical staff, organized in six departments: Personnel, Finance and Supplies, Physical Planning and Development, Academic Planning, Research and Postgraduate Development, and Statistics and Records. The secretariat works directly with the universities as well as through the Committee of Vice-Chancellors, an unofficial body of considerable authority.

The budgetary and planning functions of the Commission have become increasingly inter-dependent. In recent years, especially within the framework of the national structural adjustment effort, the Commission has drawn the universities into a dialectical process of re-structuring. The elements of the program, few if any of which has been transacted without furious controversy, include the rationalization of academic courses, the establishment of minimum academic standards, the accreditation of university programs and the coordination of research. In the process, the universities' internal structures have come under intense scrutiny. The NUC has requested all federal universities to make statutory provision for planning units in order to enhance their authority in analytical and development work.

The Federal Government deals with the universities principally through the NUC. Alongside the NUC, however, are two other statutory bodies with university functions, the Joint Admissions Matriculation Board (JAMB) which runs the university admission examinations and acts as the clearing-house for university applications, and the Students Loans Board (SLB). In addition, another statutory body, the National Manpower Board, has a well-established reputation for monitoring skilled and high-level employment trends. The NUC thus functions at the cutting-edge of university-government relations, especially with respect to planning and funding, within a cluster of related statutory agencies. The NUC has become the pattern for other Nigerian intermediary bodies in the education sector, responsible for federal planning and funding of polytechnics and federal funding and quality initiatives in primary education.

Unlike the NUC, the remit of the Kenya Commission for Higher Education (CHE) runs through the whole post-secondary sector. However, only one of its statutory functions, the accreditation of universities, has been uppermost since the CHE secretariat became operational in 1986. The mushroom growth of a private university sector in Kenya has focussed the Commission's energies on developing accreditation instruments to regulate their quality and permit the award of charters to those which pass muster. The CHE's accreditation function applies in principle also to the five public universities, where the secretariat hopes to be able to mediate in order to avoid an unnecessary duplication of academic departments. The secretariat of the CHE is also active in two other areas. One is an inquiry to establish a 'national

skills pattern', that is the ratios of professionals, technologists, technicians and craftspeople which are considered necessary to meet Kenya's high-level and skilled manpower requirements. The secretariat believes that a national skills pattern is a prerequisite to enable the CHE to coordinate non-university and university development. The other activity in which the CHE secretariat has become heavily engaged is the popularization of science, with the long-term aim of promoting the achievement of a production-related scientific culture in Kenya at all levels of society.

The secretariat, which has worked thus far with very few professional staff, has begun designing its own long-term structure, which is likely to comprise offices responsible for Administration, Finance, Accreditation, Documentation and Information, Planning and Manpower Development, Post-secondary School Education and Training, and Science Research and Education.

The CHE is nominally responsible for servicing a University Grants Committee. In practice, Kenya's four public universities and one university college continue to argue their individual budgetary submissions with the treasury, liaising with each other and collectively through the Committee of Vice-Chancellors, and if necessary carrying their cases to the office of the president, who is chancellor of each of them. The vice-chancellors, who are represented on the CHE, and praise its work on the accreditation of private universities, effectively bypass the CHE when it comes to their own plans and budgets. They defend the institutional autonomy which each university enjoys by virtue of its own statute, and clearly reject the notion of ceding part of it to the CHE. They believe that the rationalization of departments and related planning issues are best handled by freely negotiating them among themselves. For budgetary control in the public university sector they favour a statutory University Grants Committee separate from the CHE, and have drafted legislation to this effect.

Ghana offers a third model of financial relations between government and universities, which has been developed as part of its education sector reform program, and is still evolving. A National Implementation Committee on Tertiary Reforms meets quarterly to review the government's action program. In due course a statutory Education Commission with a Committee on Higher Education might be established to provide a sounding-board for university opinion.

The government apparently has no intention of establishing a plenary commission on the NUC pattern. For the time being, the National Council for Higher Education, which has powers of visitation and accreditation of courses, is assisting the Division of Higher Education of the Ministry of Education. However, the ministry concedes that it should not be involved in sensitive professional areas, and is therefore preparing to set up an intermediary Board of Accreditation, with a mandate to rationalize courses in relation to national requirements and resources. But Ghana appears to be developing a planning and budgeting system by direct interaction between the Ministry of Education and the higher education institutions. Every institution will

have a planning unit responsible for academic, physical and fiscal planning. National planning norms are being developed by the Ministry of Education's planning unit in collaboration with the Ministry of Finance. Exemplar budgets are being drawn up by collaboration between the national and institutional planning units, for implementation in 1993. Meanwhile intensive work will proceed with the faculties and departments in order to integrate the national norms with institutional requirements.

In Zambia, a fourth model of financial restructuring is being implemented in the two public universities and other colleges and institutes. It is contained in a policy document prepared in the Ministry of Higher Education, Science and Technology and announced in parliament by the minister. Among other provisions, including a new system of student finance, it fixes the planning norms which government will observe in calculating the grants to which institutions will be entitled. If institutions decide to implement stricter norms, say in terms of staff-student ratios or non-academic staff establishments, the government will permit them to keep the savings which accrue and use the savings at their own discretion to make qualitative improvements. The new policy is being phased in over a period of time, and modifications are being made by consultation between the ministry and the institutions. There is no intermediary body in sight.

Of the four models of government-university financing, Kenya's CHE system has not begun to bite, and its policy for higher education planning is clearly in disarray. The NUC in Nigeria has been a going concern for many years. Although the new IDA credit for qualitative improvement in the federal universities has aroused passions in the academic community, the NUC's writ is probably strengthened by being the project's executing agency. The other two models are still evolving. Ghana has had a longer lead time and is developing its planning and budgeting system on a considerably more sophisticated scale than Zambia's. However, Zambia's policy has won praise from some neighbouring universities for its boldness and clarity, as well as its built-in incentives towards creative budget management. At the least, these three offer serious examples of procedures for managing the planning and budgeting relationship between government and the universities, while rationalizing public expenditure according to publicly approved norms. In its different way, each illustrates that a firm and comprehensive government policy for norm-driven university funding, firmly acted upon, is a sine qua non for combining cost control with qualitative enhancement.

Neither Ghana nor Zambia has created an intermediary body to handle the budget process. Their procedures seem to assume that the integration of national planning norms in institutional planning processes, and the rationalization of academic programs across institutions, will largely do away with controversy and competition for the available resources. That remains to be seen.

On the other hand, the establishment of intermediary bodies is not a self-evidently satisfactory solution in all circumstances. To succeed, their mandate must be clear, reasonably acceptable to the universities and legally binding on the executive. They

require a highly skilled professional staff acceptable to both sides. In small systems an intermediary body may not be worth the cost and the drain on scarce staff resources. But the question of how the government conducts its relations with the universities, especially in planning and budgetary matters, will still need to be resolved. The caliber of the civil servants responsible for liaison with the universities on these matters is all-important, particularly in these stressful times when the planning questions are particularly difficult and feelings are apt to run high.

Proposals on government-university relations

Well-considered initiatives, including conferences and research, aimed at illuminating the state's involvement in university systems, deserve donor support. Forums, not necessarily public, which would enable political and university people together to examine the facts and the issues dispassionately might be particularly helpful. Such forums could include representatives of the professions, who are perhaps the universities' natural constituency and are likely to be effective interpreters of their concerns. The Chief of the Management Development Program Division of ESAMI indicated his institute's interest in facilitating networking between government and university leaders, in order (for instance) to debate the university autonomy issue. The good offices and professional skills of a highly-regarded institution like ESAMI, which stands outside both governments and universities, but has strong links with both camps, could be particularly valuable in helping both sides to establish common ground. Donors might wish to make known their willingness to support activities of this nature.

This could also be done in the case of workshops, seminars or retreats involving the university community and government ministries with whom they have a regular relationship, such as finance, planning, education and home affairs. For a start, the University of Zimbabwe would welcome support to extend its initiative.

Familiarization and confidence-building measures have a chance to defuse suspicion and raise the level of discourse if there is a prior recognition on both sides that a problem exists and should be tackled in a fresh way. Beyond talking together, however, there may well be a need for joint teams of government and university people to examine state-university relations, including statutory provisions, and the political culture of university governance, in countries with a mature tradition of public sector universities. There is scope for donor support for well-planned study visits of this kind by government-university teams from African countries which embark on a serious effort to re-think their own situations.

There is also considerable scope for donor support in the area of government-university planning and budgeting, including the intermediary bodies. The Nigerian NUC is now managing the World Bank's large IDA credit, and ODA is helping the NUC instal a management information system. The Bank is negotiating support

for Ghana's university planning effort, in which the British Council has an interest. The British Council and Zambia's Ministry of Higher Education recently hosted an informal workshop for five university vice-chancellors from the region where the themes of cost-reduction, revenue creation and management restructuring in universities were frankly and animatedly explored. Such workshops if well prepared are an excellent method for exchanging information and stimulating ideas, and could be replicated elsewhere. The British Council has decided to sponsor workshops with other groups of vice-chancellors and their deputies, and there is scope for other donors in arranging similar workshops for registrars, finance officers and planning officers. Study visits to Nigeria and Ghana and any other country where institutional innovation is being attempted with imagination and resolution would also be particularly rewarding.

The Nigerian system could perhaps benefit by a substantial project to evaluate the impact of the new, innovative and controversial IDA operation. The project document describes the overall objective as to assist the Nigerian government, through the intermediary of the NUC, to help the federal universities improve their effectiveness and relevance of their teaching and research while becoming more cost-effective. Funds will be released in three tranches, as the universities comply with eligibility criteria, relating to staff reduction (almost entirely non-academic staff) in excess of NUC norms, course rationalization, increasing self-financing of student hostels, increasing revenues from non-government sources, phasing out sub-degree programs (to be taken up by non-university institutions), rationalizing equipment procurement and maintenance, and introducing management information systems.

Under the IDA credit, the NUC will hold a special fund from which it will contract research from Nigerian universities and institutes in order to illuminate the implementation process. A major evaluation by independent researchers of the whole experience does not seem to be provided within the project. If the NUC and CVC are supportive, proposals could be invited for such a study from Nigerian research teams on a competitive basis. Provision should be made to feed the results back into the policy process after full discussion in the university community. The earlier such research could be invited, the better, since the NUC and the universities are already well into the first year of the project, which runs until 1993/94. The results should also be shared with other African governments and universities.

University governance

When a senior dean in a first-generation university of a country with a functioning intermediary body can say, 'The universities are owned by the government, and are told to go in a certain direction,' it is a symptom of a profound ambiguity about university governance.

The legal constitution of many universities in the anglophone tradition might read something like this: 'The university is

incorporated as a statutory body which is governed by a council whose composition, powers, and duties are prescribed by law. The council owns the assets of the university, determines its financial policy, authorizes the creation of faculties and departments, and is the appointing authority for its staff. The academic policy of the university is determined by the senate whose composition, powers, and duties are prescribed by law. The senate is the admissions and examining authority for the university and makes its awards. The chancellor is the titular head of the university and the manner of his or her appointment is prescribed by law. The chancellor confers the awards of the university. The vice-chancellor is the chief officer of the university and the manner of his or her appointment is prescribed by law. The vice-chancellor chairs the senate and is responsible to the council for the academic, financial and administrative management of the university. The vice-chancellor may consult the chancellor about any matter affecting the welfare of the university.'

It is common in many countries for the head of state to be the chancellor of all public universities, whether there is one, two, three or five. It is also common that the appointing authority for the vice-chancellor is the head of state, who may also appoint the chairperson of the university council. The majority of members of council might be either appointed by the government or ex officio members who are beholden to the government.

Not surprisingly, given a de jure situation which is a modern management nightmare, and a de facto situation in which state power and political intervention reign supreme over the university, many African university people have a strong desire to drag the entire issue of university governance into the light of day, and treat it to rigorous analysis and debate. This seems highly appropriate in an era when African political systems are being subjected to intense public scrutiny and the liberalization of the parastatals has begun.

Apart from the political issue in university governance, there is a good deal of dissatisfaction with the internal structures of university governance and organization, not just among academic staff but among university executives as well. A sociologist's comment, that 'universities are not very interested in understanding how they operate', may more accurately reflect a passing university tradition of complacency and inertia than the current mood.

Re-thinking the internal university structures will not be easy, not only because strong vested interests will be challenged, but because the dominant currents of thought do not necessarily run in the same direction. One current is aptly summarized by a head of department who commented that 'Democracy and academic decision-making haven't been addressed,' with the implication that academic decision-making may be far from democratic. Another current, prevalent among many university executives, is that universities already suffer from a surfeit of democracy-by-committee, and that much swifter decision-making processes, and a much sharper definition of the executive role of top management, and accountability at all levels, are essential preconditions for turning the African universities around.

Proposals on university governance

Donors should give every encouragement to well-designed research proposals on university governance in Africa, including the study of state intervention in university government (already suggested in the previous section), university statutes and their application in practice; the composition and function of university councils; and the structure of academic decision-making, with suitable recommendations for change. Conferences and workshops on this theme, including sub-regional meetings, could be highly productive.

Initiatives within universities to undertake a formal review of their internal structure and organization should be given high priority for donor support. Several donors are already active in this area, including the British Council, CIDA, NUFFIC, DSE and HEDCO, but the field is by no means saturated and there should be good opportunities for donor support groups at the university level, when they are established, to coordinate their assistance. The professional involvement of senior African management training institutes like ESAMI and GIMPA is strongly recommended.

Student affairs

Considering their importance to the universities and the effect of increased undergraduate numbers on all aspects of university life, remarkably little external attention seems to have been paid to the needs and conditions of the students themselves, as a body. Student loan schemes may be the exception to prove the rule.

Yet the students have made their presence felt. Almost every one of the universities visited during the course of this study either was closed, or had recently been closed, as a result of student unrest. On several campuses the university managements and academic staff, in some cases with sympathetic government support, were engaged in reflecting upon the causes and implications of the student outburst, and taking what action they could.

Since the most recent disturbances were only the latest in a recurring history of campus disruption, it is not surprising that some university people regard the relations between the student body, the university management, and the government (or ruling political regime) as a fundamental, not an incidental, phenomenon in African university life. It follows, if this is so, that all parties concerned with the recovery of the African universities should treat the issue with respect.

It has been suggested that the students of Africa have for generations accepted a self-appointed mission to speak out on national issues on behalf of their parents and the suffering masses of their countries. If this is so, periodic conflict with the political authorities is inevitable. Consideration might be given to the type of forum which, in times of tranquillity, might be established, to enable a round-table dialogue to take place

between student groups and government officials or leaders. The hope would be to generate a reasonable mode of discourse as an alternative to stone-throwing and police batons.

Unrest occurs these days on campuses where the living and studying conditions of university students in Africa are many times, indeed unrecognizably, worse than those of any previous student generation. In the present national economic conditions, with structural adjustment programs biting deeply into the incomes of the poorest, regular investigation needs to be made on each campus into the students' economic and social welfare, social origins, methods of financial support, accommodation, nutrition, corporate life and organization, views and aspirations. Appropriately, under the IDA credit, Nigeria's National Universities Commission will sponsor research to 'monitor the impact of increasing user charges on vulnerable groups', so that student loans and scholarships can be more precisely targeted.

This is welcome, as far as it goes. However, there should be no reason why a student equivalent of a Personal Quality of Life Index should not be developed and the student body on every campus polled annually. It almost goes without saying that the investigation should be undertaken by students as a regular research exercise under academic supervision. A statistical series of this nature would be of value in assessing the material and psychic condition of the student body, tracking social trends in the enrolment and attrition of students, and in establishing a reliable database for student finance policy.

Student housing is a recurring source of grievance and ranks high among the chronic insoluble problems of university management. The problem tends to have a very specific character, depending upon the student housing stock on each campus and its condition, the distance of the campus from the city, public transport, the availability of rental accommodation and so forth. But it is possible that some African universities have struck on ways of coping with the problems which would be helpful to others.

Through the mechanism of the AAU and the regional associations, it might be profitable for the appropriate officials to pool this information and compare experiences. These might be suitable forums also for the consideration of the radical adjustment measures now being contemplated or already implemented, to remove student board and/or lodging from the university's annual grant, privatize cafeteria and accommodation services, increase hostel fees and alter student finance arrangements accordingly, or to restructure the university budget to separate municipal from academic functions. The recent study of student hostel financing and management, undertaken in terms of the IDA operation by a sub-committee of the Nigerian Committee of Vice-Chancellors, may be a pioneering document in this field and a valuable contribution to any such discussion.

Students' representative organizations have a poor track record on African campuses, and many of them have been suppressed from time to time. It is not clear how many university administrations regard student organizations as a school for citizenship, including the observance of democratic norms, due process, and

financial fidelity, and it is not clear how much actual tuition or counselling has been available to student bodies in these arts and disciplines. Certainly the performance of them by successive generations of student leaders on many campuses has been poor if not worse. It is by no means easy to devise an approach to this issue which would win the trust and cooperation of the organized student body, but in this age of the democratic opening in Africa, it would be appropriate to consider the matter.

Part of the function of student representative bodies is to provide working channels of communication with the university authorities. Some universities have developed well-established routines to provide an orientation to university affairs for incoming student leaders, and to keep the channels open during the academic year. In other universities, the legal framework of such interaction may be unclear, routines of consultation may be lacking, and mutual suspicion the norm. The supervision of student affairs may too often be the responsibility of under-resourced dean's or director's offices, with little involvement by anyone else, until confrontation breaks out and crisis management is the order of the day.

Given the human and political stakes involved, the costs of inadequate student affairs management will be high. University communities might welcome help in undertaking internal reviews of their student affairs function, including management-faculty-student relations, and the structure and democratic effectiveness of student government.

Proposals on student affairs

It might be helpful if interested donors were to make known their willingness to support activities of the type suggested in the preceding section. Some would be inappropriate to bilateral agencies, but others, particularly those concerning management and resource issues, and the generation of new knowledge and data about the conditions of student life, may not be. The AAU and the regional associations should be consulted on their interest in participating in consultative meetings on student housing and welfare, should donors be ready to assist with travel support.

4 UNIVERSITY MANAGEMENT

Introduction

There is an overwhelming consensus, virtual unanimity, on the urgent need for African universities to overhaul their management systems. A highly experienced former registrar called for a transformation of the entire management culture of universities, in order to re-orient them towards cost-effectiveness, efficiency and accountability. The damage caused by the prolonged economic crisis, and the implications of macro-economic structural adjustment, have created the climate in which such changes have become possible, or even mandatory.

The efficiency imperative is not disputed. However, what evokes a furious response from university people is any inference that efficiency is a sovereign goal. To receive the assent and cooperation of university faculty, management restructuring must be seen to be the means by which universities can enter the difficult path of reconstruction and quality improvement.

This chapter covers the response which universities are making and need to make to the pressures for reform in management, including measures for internal management reviews, and the requirements for management training. The condition of women in university management is considered. Planning capacity, including the achievement of comprehensive management information systems, are at the center of the changes that are already in motion on many campuses. Attention is given to the effects of structural adjustment in university financing, and the scope for cost reduction and revenue enhancement. The second part of the chapter takes up the need to protect postgraduate education in African universities by carefully considered organizational and funding arrangements. The related issue of research management follows, and the chapter closes with a discussion of the vital management issue of equipment maintenance.

Management and planning

University leaders recognize clearly that old-style administrative training for administrative staff no longer suffices, if it ever did. Vice-Chancellors are anxious to participate in orientation workshops like the recent British Council-sponsored one in Lusaka, in order to help them break the mould of thought and open themselves to new possibilities and sources of advice, help and example. In the light of the success of the Lusaka workshop, the British Council is giving the report wide circulation among vice-chancellors in sub-Saharan Africa and interested donor agencies. The AAU and UNESCO also have plans for a series of sensitization meetings in Africa for university executive heads

on strategic planning and management. Meanwhile the British Council sponsors African university administrators for international seminars and short courses at the Universities of Bath, Sheffield and Manchester, and CIDA has a similar programme for senior African university administrators in partnership with the University of Manitoba.

There is general recognition that the starting point for radical change is an internal institutional management assessment. To be fully effective, it is widely thought that such assessments must be based on a participatory model, rather than merely investigatory or consultative patterns. However, they require expert guidance from professional management consultants, who would work with the management and staff of the university in helping to identify institutional objectives and bottlenecks to performance. A new management plan, with revised objectives, manning structures, lines of accountability and performance indicators for evaluating achievement might follow, and then a development plan. In the process, training requirements can be identified and the right package of training elements designed, including in-house training, to meet the needs of the new system.

The University of Zambia is undertaking such a management audit with assistance from a British Council consultant. Increasingly, the expertise and local knowledge of the best African management consultants need to be engaged by the African universities, possibly in partnership with specialists from abroad.

The under-representation of women in university management, disproportionately low even in relation to the number of academic staff, ought to be one of the issues under scrutiny in any management audit. It has attracted the attention of the Association of Commonwealth Universities, which with CIDA support has sponsored sub-regional meetings of women academic managers in Africa (and elsewhere in the Commonwealth), and is inviting donor support to extend the program. A recent study at the University of Zimbabwe found that the economic squeeze on the university had resulted in a paradoxical increase in the promotion of women university teachers and their subsequent elevation to administrative positions, since considerable numbers of senior men had joined the brain drain. The irony and the difficulty of this situation is that such women are having to cut their teeth as administrators at a time when the management and resourcing problems of the university are most grave.

There is no dispute that the creation of planning capacity within the university management system is of critical importance, linked to a computerized management information system serving accounting, budgeting, procurement, salaries, personnel management, and student services, as well as statistical analysis, academic planning, course scheduling and physical planning. The role of planning officers in the Nigerian system has recently been clarified by the NUC, which has urged the universities to prepare the necessary legislation to give effect to their enhanced status. Ahmadu Bello University is rated as having at present the most well developed and authoritative planning unit in the Nigerian system, even in advance of its statutory recognition.

Proposals on university management and planning

Many donors are already at work in the university management field, but by common acknowledgement, the work has barely begun. The recent donor activity in the management and planning area has been well received, but the coverage is patchy. It would make very good sense for the principal interested donors, through the agency of the DAE Higher Education Working Group, in association with the AAU, to take an inventory of their activities against a map of all the African universities, in order better to plan a coordinated response to the need, at the level of general policy and resourcing. An investigation by HEDCO into university management on behalf of the European donors to education group should prove helpful.

The take-up of donor offers is likely to be uneven, since by definition an institution must be ready for change and committed at the top level to embark on change before assistance in the management field can be put to good use. Nevertheless, with strong support from governments and in collaboration with the regional university associations, there is an excellent opportunity for networking on a national and sub-regional basis. A particularly good start is being made through the orientation workshops for vice-chancellors (British Council, AAU/UNESCO). These need to be continued in order to achieve full coverage, and a similar series launched to take in registrars, bursars and planning officers.

The special case of Nigeria deserves attention in its own right, given the excellent base provided by the IDA project and ODA's MIS initiative, together with the existing national networks of university registrars, bursars and planning officers (the latter still struggling to commence its program). Urgent attention is required on two fronts. First, an assessment of the condition of the planning units should be undertaken in the light of the NUC request to universities to upgrade their planning officers' status. It was pointed out that planning units are at the fulcrum of the IDA/NUC operation, but that their status is still ambiguous, their offices understaffed and poorly equipped, and their personnel in dire need of professional training. Second, help might be needed by the Committee of University Bursars in designing a uniform accounting system for the federal universities, as they have been commissioned to do by the CVC. For this purpose, uniform management information systems will be essential. The committee is anxious to develop simultaneously a code of standards for the federal universities on the lines of the document adopted by the relevant professional association in the United States.

Institutional management assessments followed by appropriate training offer an important field of assistance for donors. In this area the comparative advantage of commissioning well-respected management development consultants within the region would seem to be overwhelming. ESAMI are ready and eager to make their services available, not to provide ready-made diagnoses and solutions, but to help universities in working to achieve their own. No doubt other management development institutes would wish

to do the same. It must be acknowledged that this is a high-risk area of activity, in that ill-prepared and poorly-conceived interventions by management consultants would cause serious setbacks to essential management reform. The goal should be for a small and select group of African institutions to take responsibility for management training in the higher education field, and develop special expertise in it in collaboration with their university partners. There would seem to be very good scope for institutional partnership between the selected African institutes, and some of the specialist higher education management units in Europe and North America.

The Commonwealth Secretariat's important new initiative, the Commonwealth Higher Education Support Scheme (CHESS), was adopted by the Commonwealth Education Ministers Conference in late October 1990. One of its component projects is a Higher Education Management Development Service, which is intended to make available an information service to national planning units, and a technical advisory service in planning, management and finance to individual institutions. The concept is expected to be refined and developed further in consultation with Commonwealth universities and ministries, donors and other specialists, and to be launched in a pilot phase in mid-1991. Initial funding for CHESS has been pledged by Commonwealth governments, but other donor support will be welcome as the scheme becomes operational.

Since the Management Development Service will operate on a subcontracting basis, there is ample scope for donor collaboration in meeting the needs of individual clients. The concept of an international clearing-house for information on higher education management needs further development before its usefulness can be assessed. However, the second CHESS proposal in the management field, for the mobilization of a rapid deployment force of management development specialists, recruited from the Commonwealth's extensive international network, is likely to prove attractive to African universities. Again, the development of working partnerships with African management institutions seems essential.

The Association of Commonwealth Universities' initiative for women managers' workshops should receive donor support. Studies similar to the Zimbabwe one might be undertaken in other countries, on a competitive research grant basis, in order to assess the situation of women in university management, the extent of institutionalized discrimination and its causes, and the prospects for affirmative action.

The establishment of computer-based management information services, linked to the development of a professional, integrated planning capacity in universities, is recognized everywhere as an urgent priority, some say the most urgent of all in achieving the gains in efficiency which have become imperative. Many universities are making headway in this field with donor support, the ODA/British Council program in Nigerian universities, linked to the full development of the NUC management information system and the IDA sector adjustment operation, being perhaps the most extensive so far. The map of donor assistance in the management field, suggested above, should be helpful in determining where

the needs are being attended to and where the demand is particularly pressing, and devising an appropriate response, which could aim at the installation of MIS in every African university on a rolling program by a target date.

Cost reduction and revenue enhancement

African university managers have an increasingly sharp awareness of the need for pro-active measures in cost reduction and revenue enhancement, often prompted by new official policies on university planning and financing. Behind the official policies frequently lie the severe disciplines of macroeconomic structural adjustment, and their application in sectoral policy. As high cost institutions, which also appear to have excessively high unit costs by comparison with primary schools, or national per capita incomes, or other countries' unit costs (comparisons frequently made by the World Bank's researchers), the African universities have been easy prey in recent years to radical critiques of their cost structures.

Ironically, the high cost charge has been laid at the very time that African universities have experienced every kind of dilapidation and professional humiliation as a result of budgetary stringency, high inflation and currency depreciation. It is this very situation which has compelled many universities to accept, even under protest, the core of the World Bank's logic on university costs. Few university executives would refuse new funding policies which removed from their budgets, or reduced the subsidies of, municipal and food and lodging services, provided they received more funds for staff salaries, rehabilitation and maintenance, teaching equipment and materials, and books and journals. The rationalization of course offerings, the compulsory retirement of (mainly non-academic) staff in order to meet new planning norms, and the reconstruction of student finance, including increased fee charges and the introduction or revival of student loans systems, are highly controversial but are nonetheless being proceeded with on many campuses.

The demands made upon the management and planning systems of universities by such changes have already been referred to. It is very important that the whole transition should be properly documented and analyzed, at least in a sample of universities. A snapshot picture on some campuses will be given by the AAU/NUFFIC/World Bank study, but a collaborative research project involving several universities is called for. Since the changes have already got under way in many universities, the sooner a start can be made the better.

Reference has already been made to the value of university managers being able to share experience. Such meetings are not luxuries but necessities, given the heavy demands being made on vice-chancellors and senior administrators by the changes being implemented, and the untried nature of many of them. The British Council's Committee for International Cooperation in Higher Education (CICHE), following the success of the September 1990 Lusaka workshop, will finance others out of a special fund dedi-

cated to help African universities to reduce or recover costs and find alternative sources of funding.

African universities have gained considerable experience in cost reduction, although on most campuses there still seems scope for further saving. (Not that overall costs should be expected to come down, since the severe underfunding of many academic and related functions must be redressed if the universities are to recover.)

In this connection, a brief word is needed about the specialist area of maintenance management. Effective maintenance management presupposes a maintenance culture, which by common account is largely lacking and which will require a sustained program of sensitization, backed by incentives and sanctions, to overcome. The University of Dar es Salaam, with Swiss development support, has embarked on a complete reorganization of its maintenance system which is already recording a threefold increase in productivity. The improvements in the quality of communal living, morale, and efficiency, which ensue from a high-quality maintenance regime, hardly need emphasis, not to speak of the savings accruing from protecting the value of the university's capital investment and avoiding the high but inevitable long-term costs of rehabilitation or replacement.

It seems that revenue-raising measures have not yet been as successful or as widespread as cost reduction. University-industry links for the purpose of R&D, raising revenue from 'continuing professional education' courses, gaining industry-endowed staff positions, and arranging staff exchanges with industry are not well developed on most campuses. The AAU has undertaken a useful study of universities' links with the 'productive sector'. Some R&D centers within universities have established themselves and provide a helpful service to industrial and other clients, especially in the field of appropriate technology. However, the growing number of African universities specializing in agriculture, commerce and technology is a phenomenon in itself, and suggests the need for the issue of industrial links to be taken up at a conference or workshop at which all of them could be represented.

There are few university 'development offices', to promote revenue-creating services to industry and alumni. University financial management is still almost wholly administrative. Many universities have woken to the need for promoting links with alumni. However, in several countries in Eastern Africa this is not seen as a major fund-raising source in the short term. For the early period of alumni activity, at least, the concentration will be on 'friend-raising', not fund-raising. Nevertheless, some universities, particularly in West Africa, have opened endowment funds and invited contributions from their alumni, with some success.

Consultancy work, especially organized in university consultancy companies, offers a potential source of revenue. There has been an explosion of UN and other donor-commissioned consultancies in African countries, and African academics have been the beneficiaries to a very considerable degree, often acting as sub-contrac-

tors for local firms. This has been a highly significant factor in academic staff retention. However, consultancy has ambiguous consequences for academic life. Stories abound of some donor-favoured academics cornering the market, of some (perhaps the same) taking on more assignments than they can cope with, of sub-contracting with inadequate quality control, of classes missed without cover. Whether or not universities have introduced rules to regulate personal consultancy work and tax private incomes from this source, it is highly doubtful if they have succeeded or can succeed in the present economic conditions. Such rules are more likely to prompt concealment, and attempts to claw back revenue are likely to be counter-productive. Consultancy contracts won by university research outfits or consultancy companies are a different matter.

The AAU's omnibus project with ECA includes an element on the promotion of consultancy work in universities, but important work in this area has already been done by the more widely-based UNDP consultancy development project, funded by the Dutch government, coordinated by the World Bank, and executed by full-time project directors in several African countries, including two based in GIMPA and ESAMI. The project has been working with national consultancy communities to help the formation of responsible, professional consultancy industries, with national professional associations and codes of practice backed by law. Assisting universities to establish their own consultancy companies has been an important element in the project, in view of the high concentration of professional talent in universities, the inevitability of the involvement of academic staff in consultancy work, and the risks that they might be used and exploited by off-campus entrepreneurs, with no scientific or other benefits accruing to the academic community. The project was evaluated at a meeting in Abidjan in September 1990.

There is good reason for universities to develop a consultancy policy governing individual and collective consultancy work, in the interest of good staff management, to safeguard against unethical practices, and to protect the academic reputations of the institutions. ESAMI in Arusha and GIMPA in Accra have built up considerable insight and expertise in this work. It would make sense for universities to take advantage of the experience of ESAMI and GIMPA in developing their consultancy policies and establishing their consultancy companies, including R&D liaison with industry.

<u>Proposals on cost reduction and revenue enhancement</u>

There is urgent need for a collaborative research project in a sample of universities to monitor the adoption, management and consequences of structural adjustment measures on a continuous basis. Some of the studies which will be launched by Nigeria's National Universities Commission under the IDA scheme will be highly relevant, but are designed to be thematic and to feed into implementation. The current AAU survey of cost-effectiveness is highly relevant but based essentially on a snapshot approach. A broader and longer-term research design is needed for the comparative study. Donors should be encouraged to launch a research

competition on an Africa-wide basis, and consider associating the AAU with the work.

The British Council's sponsorship of small-scale, high level-workshops for African vice-chancellors and a few consultants deserves support, and (as suggested earlier) extension to university registrars, planning officers and finance officers. Co-financing should be considered if necessary. The experience of the Nigerian networks of vice-chancellors and senior academic officers should be supported and, if they are willing, tapped into in a suitable way for the benefit of other sub-regions.

The achievement of a general maintenance culture and preventive maintenance system is essentially a matter for local university management and financial allocation, but experience indicates an important role for technical assistance and training in this area, and visits to campuses which have successful systems in operation. It is worth consideration whether the donors which have the advantage of experience in helping to develop maintenance systems, like the Swiss and the Nordic agencies, could make this available to the regional university associations and other interested donors for possible application elsewhere.

The AAU's initial work on universities and 'the productive sector' deserves to be disseminated more widely and possibly extended. Individual universities which require assistance in designing and managing the establishment of development offices, should be able to call on suitable consultancy support or study visits both in Africa and abroad. The University of Lagos has perhaps one of the best developed organizations of this type in Africa (and also a consultancy company of long standing). The existence of a large number of specialized universities of science and technology, agriculture, and business, suggests that a workshop be sponsored, if the idea has their support, to share their experience of their relations with industry across the board.

The UNDP/Dutch government/World Bank project on consultancy development in Africa deserves to be consolidated and extended, subject, that is, to the outcome of the evaluation. At any event, ESAMI's and GIMPA's exceptional experience in this field needs to be made available to universities which seek advice on how to deal with consultancy work on their campuses, including setting up consultancy companies. There is scope for establishing collaborative links between consultancy companies in African universities and similar companies or centers in universities elsewhere in Africa or abroad. As the Ghanaian project director suggested, such collaboration could benefit the universities directly, for instance through investigations of postgraduate capacity and curriculum development, or a project to determine how to encourage people who have made their mark in industry to return to the universities as teachers.

The organization of postgraduate studies

The management of postgraduate studies is an organizational issue of particular importance to the recovery and development of the

African universities. Postgraduate work has declined as the university resource-base has declined, research facilities have deteriorated and many senior staff have left, or have had to spend most or all of their time coping with the swollen undergraduate enrolment.

The issue is how to organize the management of postgraduate studies so that they are not only protected but promoted. As a research administrator, himself a former dean, put it: 'Graduate programs need to be insulated from the general pressures on universities, in management, organization and budgeting.' A separate graduate faculty with teaching staff wholly committed to higher degree teaching is recognized to be totally out of the question, not only because of the unthinkable cost, but also because in principle the most senior academics should also contribute to undergraduate teaching.

The University of Lagos has tackled the problem by creating a Postgraduate School, an autonomous administrative entity. The criteria for appointment as a postgraduate teacher are fixed by regulation. Such staff on appointment as postgraduate teachers remain in their own departments, with teaching loads adjusted to their dual role. (For instance, by regulation, no postgraduate teacher may supervise more than four research students.) The Dean of the Postgraduate School himself remains a member of his teaching department and subject to its discipline as far as his teaching duties are concerned. The Graduate School budget is about N1 million, of which N600,000 is spent on hiring graduate assistants, an essential response to the shortage of senior academic staff.

This model may well be of interest to other universities. Its success doubtless depends on the level of funding it can attract. A major problem will therefore be that 'Governments,' as one university administrator remarked, 'do not seem interested in postgraduate studies'. Their interest has to be aroused. Another problem will be the level of financial support available to postgraduate students themselves. This is a matter which universities have to take up with the potential sponsors, the employers, including government. Since postgraduate studies are almost all vocationally specific, the cost to the sponsor can justifiably be linked to benefits. Nigeria is now permitting federal universities to charge economic postgraduate fees and has raised the postgraduate scholarship accordingly, but the level of personal investment required by postgraduate students is still considerable. As a result, it is difficult for universities to attract some of the brightest students into three-year doctoral programs when they can complete an MBA in two years and be earning handsomely as soon as they graduate. This situation has serious implications for the universities' own staff development programs, and by extension the staffing of all other senior institutions in the tertiary sector.

Proposals on the organization of postgraduate studies

Urgent priority should be accorded to university proposals to reorganize the structure, management and resourcing of postgrad-

uate training. In the selected disciplines in which universities have the capacity for postgraduate work of acceptable quality, it is essential that the workloads of qualified postgraduate teachers be protected, insofar as they can be, by regulation and organization.

Government officers responsible for higher education policy and funding need to be engaged by the universities in a serious analysis of the role of postgraduate studies in development, as well as the current cost structure and the objectives, scale and distribution of official support through student finance for postgraduate training at home and abroad. Other employers of postgraduate manpower need to be brought into the discussion, to consider the scope for direct non-governmental investment in postgraduate training capacity in universities, as well as their responsibility for the sponsorship of employees for postgraduate degrees.

Clearly, such discussions would be better informed by the availability of up-to-date country studies on postgraduate demand, capacity and supply, in which the regional dimension would necessarily be important. Donors could assist, as they have in at least one discipline (Economics, through AERC), by enabling such studies to be commissioned.

In this area, as well as the other governance and management areas, well-considered proposals for study visits within Africa, in other LDCs or elsewhere should be supported.

Research management

The management of research is closely linked with the organization of postgraduate work in universities, and the two activities are frequently discussed in the same breath. This is a critical but underdeveloped field where two donors dedicated to research promotion, SAREC and IDRC, have been providing some training opportunities. IDRC has made it possible for 25 African graduate students in Agriculture, studying in North America, to attend an annual research management program at the University of Manitoba Summer School. As a spinoff, two lecturers from the University of Zimbabwe attended this year's program and returned with University of Manitoba staff members to inaugurate a regional program based in Harare. IDRC supports Sokoine University of Agriculture's Institute of Research Management in Tanzania, and CISAG's research management center for all disciplines in Dakar. In January 1991, the Eduardo Mondlane University of Mozambique (whose own research administration system is highly regarded) will host a conference on university research management for the SADCC region, funded by SAREC.

It is not clear whether African universities have given sufficient attention to the condition of research management in their institutions. No doubt, as in everything else, performance varies considerably. However, they would do well to take as a warning signal the fact that the reputation of African university research management in the donor community is very low. Several

representatives of different donor agencies in different African countries volunteered views, ranging from frustration to despair, about the poor record of university research bodies and departments in the management of research grants. One key figure in research promotion in one of the sub-regions declared categorically that, with one exception, he had abandoned grant-making to universities. The only way, in his view, to achieve results was to support individual researchers with a proven track-record in research completion and financial accountability. Another grant manager, across the continent, stated that he had written off university grant-making after years of dashed expectations, and would henceforth direct his grant budget to research networks.

These are not the views of prejudiced or inexperienced individuals who know nothing about the difficulties under which African universities and academics are labouring. They indicate a serious problem for universities and donors alike, as well as bodies responsible for national science policy and regional scientific organizations. Many universities claim an absolute shortage of research funds. At the same time, several donors complain that their research grants are not spent, or are misdirected, or go unreported.

Proposals on research management

There appear to be structural problems in research management, and what these are need to be investigated and exposed to scrutiny if an adequate training response is to be mounted. Likewise, examples of good practice, by individuals, networks and universities, should be examined for the positive lessons they could offer.

The issue is of sufficient importance for it to be taken up by the AAU and the sub-regional university associations, with the support of interested donors. Considering the millions of dollars committed by bilateral donors alone to research in Africa, let alone the foundations and the two dedicated research donors, IDRC and SAREC, donor interest in a more systematic and concerted approach to the research management problem should be high. There seems to be scope for one or more studies of the problems and the successes to be commissioned, with support from interested donors. Follow-up workshops should examine the findings and decide on remedies. Senior African management development institutes might have a role, both in the inquiries and in any training solutions which might be envisaged.

Equipment maintenance

Equipment maintenance is regarded by some university administrators and academics as the single area where the greatest gains in academic productivity, in both teaching and research, could be achieved. Effective equipment maintenance management also requires a preventive maintenance culture, but this must be associated with a skilled and realistic procurement policy. Accurate equipment specification, including a high degree of sensitivity

to local climatic conditions, working environments, and backup services, the need for compatibility and standardization within institutions (and across institutions, wherever possible), and an effective spare parts ordering program, are pre-requisites for a successful long-term planned maintenance system and associated productivity gains.

In addition to these requirements, universities and research institutes face peculiar difficulties associated with large backlogs of defective, obsolete and inappropriate items, much of it ordered in days of relative plenty or provided by donors, whether or not the suppliers were locally represented. Large forex outlays are required to bring in spare parts, if they are available, or specialist repair technicians from abroad. The region-wide need for viable maintenance, repair and spares services, coupled with rationalized and realistic procurement policies, is graphically illustrated in an exploratory survey undertaken recently on behalf of the AAU.

Effective maintenance systems are among the 'eligibility criteria' which Nigerian universities are required to meet in order to qualify for disbursements under the IDA/NUC credit. The Nigerian universities are expected to develop maintenance plans and establish regional equipment maintenance centers. The EC and ODA are expected to give support to this program.

In the SADCC countries, the International Foundation of Science (IFS), supported by SAREC, has initiated a pilot project which has a different organizational base from the Nigerian scheme. The IFS project involves about 35 equipment user groups of researchers and technicians, all in the experimental sciences, working in different institutions throughout the region. The aim of the project is to help each group to make maximum use of its equipment, based on locally available means.

Local ingenuity, within university departments and research institutes, is probably the most obvious local resource on which to capitalize in addressing the equipment issue. What seem indicated are ways of disseminating to the wider African scientific community the region's experience in rehabilitation of equipment, improvisations and equipment inventions. A valuable Southern African network, for instance, based in the Computer Studies Department at the University of Zimbabwe, runs periodic workshops in appropriate (that is, small-scale, low-cost) computer technology design and fabrication, with applications across many disciplines.

A suggestion was made that the African universities might benefit by an examination of low-cost scientific teaching and demonstration equipment for higher education in other LDCs such as India, Indonesia and Malaysia. In addition to helping to fill the serious shortage of such equipment in African university laboratories, the implication of low-cost items is that they would also be inexpensive to repair or replace.

Proposals on equipment maintenance

The development of sustainable equipment maintenance systems is so fundamental to the quality of teaching and research that a sustained and comprehensive donor initiative seems indicated, in association with the AAU and the sub-regional university associations. UNESCO, the Commonwealth Secretariat, IFS, SAREC, IDRC, NUFFIC, GTZ and ODA, among others, have all been active in this field, but the need is still vast. Appropriate mechanisms for a permanent remedy to the problem on a sub-regional and continental scale should be seriously entertained.

The Nigerian experience should be assessed as the project proceeds. If possible an early determination should be made as to the replicability in other sub-regions of Africa of Nigeria's proposed university-based equipment maintenance system with regional equipment maintenance centers. A CHESS proposal for regionally-organized technician training could be a valuable vehicle for multi-donor support. The results of the IFS pilot project in SADCC countries should be instructive, particularly as to whether initiatives are more likely to succeed if based on research groups rather than on institutions. Support should be made available for the generalization of local experience in equipment rehabilitation and appropriate equipment design. Well-researched requests for study visits to other countries in the South with low-cost laboratory and workshop equipment industries should be sympathetically considered.

5 RESEARCH ORGANIZATION, POSTGRADUATE STUDIES, STAFF DEVELOPMENT, ACADEMIC PUBLISHING, LIBRARY DEVELOPMENT AND INFORMATION TECHNOLOGY

Introduction

This chapter groups together many of the themes that cause most anxiety on African university campuses and in donor organizations. They represent realms of activity which are to a high degree mutually dependent and mutually supporting. The robust vigor of one will give others scope and encouragement. If one is in decline, all are losers.

The first section considers rather schematically the pattern of research activities outside and inside universities, and bears down on the question of centers of specialization and the organization of postgraduate studies.

The second section considers the questions of staff development (which is used here in the limited sense of measures designed to foster the academic growth of university teachers and researchers), academic disciplinary associations, and academic publishing.

The third section turns to university library development and associated information technology.

Research organization and postgraduate studies

The organization of research

Apart from the universities themselves, African research organizations comprise an ever-expanding range of ministries, councils, institutes, centers, networks, associations and academies. They operate at sub-national, national, sub-regional and Pan-African levels, or as African affiliates of world (or Third World) bodies, covering the full spectrum: state-run, parastatal, inter-governmental, independent international, national and local NGO. They are funded by government, single donor, multi-donor, membership subscriptions, or any combination of these. Their functions are equally varied, including research per se, R and D, sponsorship, representation of research bodies, communication between research bodies, and advocacy on behalf of research causes. The establishment and maintenance of a database on African research organizations, including development of a taxonomy and publication of a directory or gazetteer might be a worthy project for the newly-minted Network of African Scientific Organisations (NASO) of the African Academy of Sciences (AAS).

Within universities there is a less complex but typically diverse organization of research, around individual scholars, research partnerships, departmental research groups of senior scholars and postgraduate students, long-standing research projects both discipline-based and inter-disciplinary, research centers within faculties, free-standing research institutes, and commercially-run R&D companies, with a diversity of funding sources to match.

Between the two sets of research structures, university and extra-university, there exists an extraordinary web of reciprocal, dependent, and perhaps even parasitic, relationships. As African governments' funding of research in both structures has declined, the proportion of research funds contributed by international agencies has increased, along with the influence of the international donor community on the organization and the agendas of African research. The decline in the capacity of universities to sustain high-level research has discouraged many donors and persuaded at least some of them to reduce their direct funding of university-based research and shift resources into the extra-university, NGO research sector. The high-caliber international research institutes and (equally international) subject-based research networks seem to have been prime beneficiaries. The relationship of each of these to the universities is particularly important.

The quality and effectiveness of the research output of the international research institutes and the international research networks are the chief justification of their existence. But without scholars there would be no output. It is widely acknowledged that both the institutes and the networks have been responsible for retaining outstanding scholars in Africa, engaged in productive scholarship, who might otherwise have sought professional (or economic) satisfaction elsewhere. They have also provided a kind of haven for scholars who have been at odds either with university managements or with political regimes. A perceptive senior government official thought that one of the useful functions of independent research outfits was precisely to provide a conducive environment for maverick thinkers.

The international research institutes are elite communities of scholars working collectively on fundamental problems in their disciplines, and in the African tradition this has meant problems whose solution would have a beneficial social or economic impact. These elite scholarly and scientific communities have their roots in the universities, they maintain collegial relationships with cognate university departments, and their audience and clientele is university-educated. The institutes are thus of but not in the university system. They are able to pursue their own research programs by mounting research networks with university scholars, providing research facilities to visiting university scholars, and recruiting postgraduate students from universities as research assistants.

These relationships are self-evidently beneficial to both sides, and particularly to the universities in these straitened times. At least one institute, ICIPE, dismayed by the erosion of university research capacity and proud of its own, would like to incorporate itself as a teaching company, to offer postgraduate de-

grees in insect physiology and ecology. It appears that AAS and NASO are hitching their wagons to the same star, advocating that high-quality, developmentally-related African research centers should also take on teaching responsibilities. It would be interesting to know whether the disciplinary coverage of all top-rank international African research institutes has ever been assessed. The proposition, made in some quarters, that international research institutes should take over postgraduate training from the declining universities, is discussed at some length in the next section.

Research networks in Africa have become an increasingly important channel through which donor funds for research and travel have reached university faculty. University people readily acknowledge how this has benefited morale in a bleak time, but misgivings are being expressed about some of the side-effects of the networks boom. One vice-chancellor emphasized that networks were no substitute for the rooted development of research capacity within departments. Research networks had been a saving grace in helping his university to retain high-caliber faculty during the worst of the economic crisis, but his main priority now was to secure the funds to rehabilitate key departments so that productive researchers could encourage postgraduate research to flourish. On the other side of the continent, a research institute director was finding it difficult to maintain a coherent research program while members of his research staff, unknown to him, were signing up for network-funded projects on the side.

The head of a successful social science network acknowledged that networks were suffering from the effects of proliferation. They were in competition with each other for the available donor funds, as well as to secure the best researchers. Since networks based in research NGOs paid better rates than donor-funded university projects, they had little difficulty recruiting the university staff they wanted. But in the process, the networks were undercutting or hijacking the universities' own research agendas.

Against these competitive and slightly anarchic tendencies, it is easy to understand the particular appeal of the African Economics Research Consortium. AERC organizes explicitly in departments of Economics, focuses on one field of study within the discipline and a handful of defined sub-themes, and uses its grant-making authority to help lever up research quality through a tough but constructive process of peer review and expert advice, and the incentive of publication. The consortium has won high praise from its academic collaborators and is widely regarded as a model to be emulated, especially in support of young faculty members and master's degree candidates.

Proposals on the organization of research

The proliferation in Africa of research organizations of every kind, of which a high proportion is partly or wholly donor-funded, suggests two proposals which donors might consider.

The first is for an African institution, perhaps NASO, to be commissioned to create and maintain a database on African re-

search organizations, to be published periodically as a work of reference. (The series of country studies of research capacity and organization which SAREC has commissioned, deserve recognition and may need to be augmented, as companions to the regional inventory.)

The second proposal is to convene a consultative meeting of African research networks, perhaps under the auspices of the AAU and AAS, in association with UNESCO and ICSU, to assess the condition of the networks, their relationship with each other and the universities, and related matters like donor policy and funding.

The AERC example has proved compelling, despite its relative youth, so that there is every reason to give serious consideration to other discipline- or department-based research consortia, run on the same lines. Judging relative priority among the large number of academic disciplines in need of assistance is likely to be somewhat arbitrary. The quality of leadership is pre-eminent in work of this kind, and will have to be assessed along with the merits of each proposal. Two areas have made a distinct impression during the course of the inquiry:

(1) Mathematical Sciences. There is strong evidence that the discipline of Mathematical Sciences is under particular stress in African universities, with large enrolments and depleted staff. The subject is stereotyped as being exceptionally difficult, especially for girls. Chronic shortages of Mathematics teachers in schools mean that students are not well prepared when they enter the university. Yet Mathematical Sciences are fundamental disciplines, 'so basic that they are invisible' to the university community, according to a dean of science. Apart from the nurturing support of the International Centre for Theoretical Physics in Trieste, there appears to be very little international funding for the discipline in African universities. An African Mathematical Sciences Research Consortium could help to raise the visibility of the field and give it welcome aid in postgraduate training and academic staff development.

(2) Law. This is another discipline in which international financial support seems to be poorly developed. An area of special need is Public Interest Law, which deals with such issues as the protection of civil rights and liberties, curbing of the arbitrary use of executive and administrative power, defense of the rights of minorities, women and children, and the assertion of the right to legal representation and due process. The era of the democratic opening in Africa finds most legal systems without adequate constitutional and statutory protection for such rights and liberties, and with an inflated role for the state and the security apparatus vis a vis the citizen. The legal profession, with notable exceptions, has not developed a tradition of public interest defense. An African Legal Research Consortium would provide a timely vehicle for the investigation of some of these matters, and the promotion of a new generation of academic lawyers and civil rights practitioners with a specialist interest in the field. In due course, South Africa's highly developed public interest law sector, which has been strongly linked to university law schools, could offer interesting models of prac-

tice as well as intellectual resources for an African Legal Research Consortium.

Centers of specialization and postgraduate studies

This inquiry was asked to address the questions whether high quality research and postgraduate studies within African universities were in terminal decline, and should be shifted decisively (with donor support) from universities to non-university research institutes. The questions arise out of the erosion of research capacity in many African universities, and the pressure under which postgraduate education is operating on many campuses. These conditions have been discussed earlier and are well known.

There is full agreement that the deterioration has been severe throughout much of the region, and that even universities with well-established research cultures and postgraduate programs are holding on with difficulty. However, university people do not concede that this grave crisis spells the end of research and postgraduate education in universities, still less that these activities should be transported somewhere else. Their responses to such suggestions take several forms.

Firstly, concerning the diagnosis, it is all too easy to fall into the trap of over-generalization and believe that because the situation is bad, it is bad everywhere and without relief. This is not the case. For a start, the university landscape in Africa is large, complex and various, and there will be exceptions to every general statement about it. It is impossible, without a systematic investigation, to analyze satisfactorily how some researchers keep going and how some adequate postgraduate training is offered, because the variables are endless, and many of them are personal. Clearly, not every country's economic circumstances and budgetary policies are the same, not every country is a net loser in the brain drain in every discipline, some faculties and departments are better led than others, well-directed aid and link schemes and research networks make a difference, some disciplines are less vulnerable to equipment failure, and so on. Moreover, some universities, having been down, now show many signs, including self-belief, of bouncing back. The proposition of terminal decline is therefore rejected on the basis that there is too much life in the system yet.

Secondly, even if the first proposition--terminal decline--is conceded for the sake of argument, the second proposition--shifting research and postgraduate education into high-caliber independent research institutes--fails on the issue of resources and infrastructure. If resources are to be made available for a new system, why should they not be made available for the universities, where so much has already been invested, and the manpower and backup facilities, if depleted, need only to be revived not newly established? The idea of independent research institutes replacing universities as postgraduate schools seems merely fanciful to many people, given the difference in marginal cost. The institutes' research interests tend to be highly specialized and do not cover the range of core academic disciplines. Moreover, the enrolment capacity of the research institutes taken

together could not match the requirement for postgraduate enrolment throughout the region.

Thirdly, it is pointed out by university people that independent research institutes recruit their staff from university faculties, and rely on scientists and technologists, who are products of universities and nowhere else, to take up and apply their research findings. It follows that the health and influence of the research institutes are totally dependent in the long term upon the quality of both the faculty and the graduate output of the universities. It would be delusory to cream off the best research scientists for the independent institutes, run down university-based research, and expect the quality of science graduates to remain the same. Any gains to the research institutes would be short-lived. Moreover, the loss to the universities would be catastrophic, because the best people would be compelled by professional self-preservation to abandon the universities in favour of their competitors.

Fourthly, it is widely recognized that a go-it-alone strategy by each university makes no sense. There is much evidence that the African university community, often with donor support, has been engaged for many years in evolving an alternative, sustainable pattern of research and postgraduate development. The evolutionary process has not been linear, and it has been far from systematic. In recent years, however, forced to confront hard choices, the African universities have endorsed the policy that high quality research facilities and associated postgraduate education need to be built up on a selective basis within the African region. As a senior professor put it, 'The rationalization of resources is essential. Regional integration is a rational strategy of national development.' The sub-regional university associations and the AAU have thrown their weight behind the policy. UNESCO and the World Bank strongly endorse it.

The African experience of intra-regional collaboration goes back many years, to the proliferation of single national universities in late-colonial and newly-independent African states. Such universities, especially very small ones, have acknowledged from the outset that self-sufficiency in postgraduate and research capacity is out of the question. As a matter of course, therefore, they have adopted inter-university collaboration across national frontiers as a principle of development. The colonial experiments with selective development within international federal systems did not endure, but many bilateral and multilateral arrangements between independent universities have done so.

Over the years, many outstanding African departments and university-based research institutes have become recognized as leading centers for research and postgraduate training. This has occurred formally through a process of selection by the collaborating universities, under the aegis of sub-regional or regional bodies like UNESCO's ANSTI, or SADCC, or de facto through international agency support of particular disciplinary programs (for example, in Statistics, Demography, Marine Biology and Information Sciences), and the provision of scholarships to enable students from the region to attend them.

In multi-university national systems, the same principle of inter-university collaboration implies the need for rationalization and selective development of research capacity, sharing high-quality staff and encouraging postgraduate student mobility. These procedures not only conserve scarce national resources, but widen the pool of talent and facilities from which academics throughout the national system, and for that matter across the region, can benefit.

In recent years, countries like Nigeria and Ghana have engaged in accreditation and rationalization exercises at considerable political cost. The IDA/NUC credit, notwithstanding the sound and fury it has provoked, is aimed at lubricating the adjustment process in the Nigerian federal university system, in favour of the rehabilitation and selective support of research and postgraduate capacity. Furthermore, Nigeria has embarked upon a major differentiation within its extensive and multi-tiered system which involves converting the first-generation universities by stages into dedicated postgraduate institutions. Ghana's and Nigeria's pioneering efforts are no doubt exceptionally instructive for other countries which are engaged in the development of multi-university systems, as well as for those which are planning the process of institutional specialization within sub-regional frameworks.

Reference was made in chapter 2 to the work of sub-regional networks of deans, supported by IDRC, the AAU and the sub-regional associations, who have been mapping postgraduate training capacity by discipline as a precursor to rationalizing further investment and student recruitment. ESAURP, the inter-university research program based in Dar es Salaam, is undertaking a detailed study of postgraduate training capacity in eastern and southern Africa, in 13 priority disciplines, with support from NORAD.

Despite the very wide agreement of the AAU and the sub-regional associations, vice-chancellors, postgraduate deans and department heads, that inter-university collaboration is the only rational path to follow, it is accepted that the policy of rationalizing research and postgraduate capacity within regions is not working fast enough. Admittedly, a systematic planning exercise, which the sub-regional associations favour, involves a lengthy process. The preliminary steps include establishing criteria of research and postgraduate capacity and performance, appointing specialist panels, visiting universities, preparing reports, holding sub-regional meetings, and deciding on the designation of centers of specialization.

To reach this stage successfully requires objectivity and academic diplomacy of a high order. Only then can domestic and external resources be mobilized to build up the designated centers and secure finance for visiting faculty and postgraduate fellowships. The success of the policy may be compromised at the implementation stage by national governments or university authorities putting their own ambitions above regional solidarity. Moreover, postgraduate student mobility relies upon the consent of the students concerned, which cannot be taken for granted. As one vice-chancellor remarked, no student will willingly take up a

postgraduate place in a strange country whose political stability and economic conditions are rated worse than they are at home.

Few university people have illusions about the difficulties of rationalizing regional capacity, and making the new system work on a much wider scale than has so far been achieved. The greatest spur to persevere is that the laissez faire alternative is known to be disastrous.

In pursuing the regional policy, the university associations and member institutions have no alternative but to work on patiently, establishing their databases, and planning with governments, industrial sponsors and concerned donors the system of investments and incentives which is needed to build up recognized specialist centers in an increasing number of disciplines. There are already many arrangements in place, some bilateral, some sub-regional, involving many different agencies and sponsors. It is unwise to expect a sub-continental master plan, but short of that there is still great scope for collective action. The AAU and the sub-regional associations of universities are the obvious forums to continue the work on which they are already engaged, in conjunction with disciplinary-based regional and international scholarly associations, and the donor community.

Fifthly, and lastly in this list of responses, university people believe that the long-term future of scholarship in Africa, as one vice-chancellor put it, depends upon the building up of a self-reproducing base. The pressure on the African university system, in the jaws of enrolment increases and forex constraints, is to build postgraduate capacity in order to prepare the next, larger, generation of university staff. The internal dynamic favouring the development or strengthening of postgraduate programs in universities is therefore, to a large degree, the dynamic of the perpetuation of species.

Necessarily, as in all universities of the anglophone model, the first priority is to achieve a satisfactory spread of master's programs within Africa. For the core disciplines, this ought to be possible to contemplate within a reasonable time scale on a sub-regional basis. For doctoral programs, selectivity will necessarily be more stringent and the pace of development, even on a sub-regional basis, will be slower. Universities will need to continue to take realistic funding decisions with respect to their own staff development programs. For many disciplines in many universities, as a former registrar pointed out, creating doctoral training capacity will not be a cost-effective option, compared with the benefits, academic and otherwise, of sending their academic staff abroad, whether in Africa or elsewhere.

In fact, the present pattern of doctoral education for candidates from the Africa region is quite varied. Many universities already offer doctoral degrees in a wide variety of disciplines. Qualitative erosion and the counter-measures in favour of rationalization, accreditation and sub-regional selectivity should, in principle, thin out the number of departments eligible to enrol doctoral candidates. Collaborative arrangements among universities within the region and abroad are beneficial as a means of extending the range of expertise, equipment and other resources

available to candidates, and assisting departments new to doctoral work to consolidate their experience. Inter-university links with countries in Europe and North America are of long standing. Institutional links remain exceptionally popular in African universities, not just for the associated faculty scholarships, but because they often permit short-term relief teaching arrangements, research collaboration, periodical, research abstract or photocopy support, and the reassurance and stimulus of contact. Although there has been a decline of confidence in twinning procedures in Canada and the United States, the European and Scandinavian connections are still strong and valued. New mechanisms for designing the agreements between collaborating universities, and the possibility of split-site doctoral programs, offer hope of a revival of interest in university twinning in North America.

The concept of split-site doctoral programs is now well established and such programs are appreciated for their flexibility, intellectual richness and potential cost saving. DAAD offers a virtually open-ended model, through which a combination of research experiences in more than one country (in Africa and Germany) can be designed to suit the African candidate's topic and equipment or supervision needs. (DAAD also gives scholarships for Master's degrees at African universities.) USAID and ODA will be making a higher proportion of their graduate scholarships available for in-country and third-country training, including split-site programs.

A sort of post hoc split-site experience inspires the Rockefeller Foundation's African Dissertation Internship Awards Program (ADIAP), which is run in collaboration with the African Academy of Sciences. This program enables selected doctoral students who are already in the United States and Canada to return to Africa for supervised fieldwork in designated developed-related fields. The aim is to improve the developmental relevance and quality of doctoral research by enabling candidates to be attached to African research institutions as interns. It is also hoped that the bonds interns develop with colleagues in their fieldwork environment will make it easier for them to return home when they graduate. The ADIAP program is admired and more like it are needed.

A domestic variant of split-site degree programs is already in place through collaboration between African university departments and independent African research institutes. African universities value the opportunity to send postgraduate students on attachment to institutes like ICIPE for laboratory and field research. Such relationships are considered natural and mutually beneficial, and they are a far cry from the deadly competition between universities and research institutes that was conjured up by the hypothetical propositions considered earlier. If university-research institute collaboration in postgraduate training occurs at present chiefly in the experimental sciences, there seems no reason why it should not be extended to the high-quality social science research centers as well. Furthermore, there is every reason to encourage the establishment of collaborative links, or twinning arrangements, between universities within Africa, in which collaboration in postgraduate training and research would be central.

Proposals on centers of specialization and postgraduate studies

The upshot of the discussion in this section is that the way ahead for the development of research and postgraduate capacity in African universities is through a selective concentration of resources within the university system, and the achievement of collaborative links among African universities, between African universities and top research institutes, and between African universities and universities abroad.

The efforts of the AAU, the sub-regional university associations, and the discipline-based scholarly associations deserve donor support as they continue to work with their member universities, both in identifying centers of specialization, and in designing procedures for implementing inter-university collaboration. This is a highly complex planning exercise. As was mentioned before, the AAU and the sub-regional associations need an assured organizational base in order to undertake sustained technical and liaison work of this kind. The chosen centers (faculties, departments and institutes) will need strengthening in order to equip themselves for their expanded roles.

The financing of student mobility within Africa at the postgraduate level is likely to be a practical issue deserving special study, taking into account the variety of currency areas and free trade agreements in place. There are clear advantages in limiting the hard currency requirements of postgraduate student exchange, but where these are unavoidable, donor finance would be helpful.

There was, in fact, an overwhelming demand from the African universities for donor support for postgraduate scholarships. The variety of patterns of postgraduate study and research, particularly at the doctoral level, including several types of split-site degree programs, indicate the need for flexible funding on the DAAD model. Fellowships like the Rockefeller Foundation's, which enable candidates to undertake well-supervised fieldwork in Africa, are particularly welcome. In fact, the advice specifically aimed at the foundations was that they should do what they've always done well--'train people'.

The foundations may be particularly well placed to help develop institutional links between African universities and Africa's international research institutes, an under-developed aspect of the twinning relationship which African universities continue to regard as particularly productive.

Staff development, subject associations and academic publishing

The term 'staff development' is used here in the restricted sense of academic growth. In many African universities the term relates primarily to opportunities for academic staff to undertake advanced degree study, but this aspect has been covered in the previous section.

It is impossible to exaggerate the importance which vice-chancellors, deans, directors, librarians and other university people placed on academic mobility. The refrain was insistent: 'We need access to stimulation, interchange, nourishment, exposure to new techniques.' This boils down to three sorts of activity, both within Africa and abroad: conference travel, academic contact visits, and sabbaticals. Foreign exchange is the most commonly cited constraint.

Subject associations are typically organized on a national and sub-regional or regional basis, often linked to world bodies. At the national level, the common pattern is that university specialists in the discipline provide leadership to a national association which includes members from throughout the education system and related professions. The associations serve as a vital source of intellectual development for its members and are capable of catalyzing change within the education system at large. Both at national and international levels, the associations operate by organizing meetings and conferences or workshops, for which papers are prepared and after which proceedings are published, as well as resource materials for teachers.

The subject associations are clearly an important channel of mobility and intellectual stimulation for university people, and at their most productive are capable of publishing and disseminating academic work of considerable interest and value within the discipline. Unfortunately, the work of the African subject associations, with a few notable exceptions, has fallen on hard times. Meetings tend to be held less frequently, with fewer attending, and proceedings may be prepared but not published.

The publications of the subject associations, and learned bodies like the Nigerian Academy of Science (NAS), which is also struggling to overcome its backlog, are an important part of the output of academic publications in Africa, and in some of the smaller countries such materials may represent a surprisingly high proportion of university publishing. The sharp decline in the availability of imported academic books has put the spotlight on the radically under-developed state of academic publishing in Africa. Not surprisingly, therefore, the building of academic publishing capacity, whether through university presses or the subsidization of commercial publishers, is presented as a very high priority for the raising of academic morale, and the revival of teaching and learning, in African universities.

The complexity of university publishing should not be underestimated. Before books are published they have to be written. In a situation where imported textbooks are hard to come by, there is a clear advantage in African academics concentrating on writing essential texts for the core disciplines. The AAU/ECA project for the development of a standard multi-level text in development economics for Africa is a case in point. One young sociologist recommended in all seriousness that the best investment by external donors in academic quality, and specifically the retention of able academic staff, would be to support discipline-based textbook writing workshops, because no other activity would give more professional satisfaction to energetic and ambitious scholars.

It should not need emphasis that good writing is as much a craft as good teaching, and craft needs to be learnt. Workshops of academic writers and editors would be helpful. Universities could draw on the experience of senior African management development institutes, which have given particular attention to the preparation of learning materials, including their speciality, the case study. Distance learning specialists could also advise on the design of books from the standpoint of inter-active learning. Desktop publishing may have put the physical design and composition of books within easy reach of most universities, but the availability of paper and printing and binding capacity are major constraints in some countries.

Proposals on staff development, subject associations and academic publishing

If donors were able to provide African universities with a foreign exchange fund to support academic contact visits and conference travel, they would be striking a blow for improved morale and productivity.

Sabbaticals are more difficult. For the time being, unavoidably, sabbaticals are a much sought-after perk which enable academics to earn a stipend in hard currency for a while, perhaps save enough to purchase a second-hand car to take home, and sometimes, at least, build the academic contacts which might result in a job offer outside the country. Universities may need help in working out a sustainable and competitive sabbatical policy, including especially the possibility of a regional sabbatical exchange scheme, and financing it in foreign currency.

DSE has pioneered support for another aspect of staff development which was referred to appreciatively in participating universities. After many years of support to the improvement of pedagogy within universities, DSE offered a multi-year program package to ten African universities. The program is initiated and implemented by the universities, with forex support and some technical assistance from DSE. It involves inter-university visits, sub-regional workshops, materials preparation, and ultimately the establishment of lecturer-training centers by the universities themselves. DSE has collaborated with the British Council in this endeavor, and expects to link with UNESCO and the AAU.

Relatively small forex funds in support of subject associations would enable them to publish and disseminate their backlogs of proceedings and lubricate their conference schedules, with an entirely disproportionate payoff in terms of revived morale and academic production. An academically-savvy government official strongly recommended that donor funding to academic conferences or research projects should always include an element to cover an academic product, such as a book, tape recording or video.

University publishing generally stands out as a priority field for assistance. Its importance and complexity suggest the need for a state of the art appraisal, or perhaps several sub-regional studies, of the current state of affairs and the prospects for

development of sustainable academic publishing in Africa. The studies should examine the entire process, from writing and editing to composing, printing, marketing and distribution, with special attention to the prospects of the new publishing technologies and the economics of academic publishing on a sub-regional and pan-African scale. On the initiative of a sub-regional subject association, the Association of University Teachers of Literature and Language (ATOLL), NORAD has agreed to fund a feasibility study for an academic press for the SADCC region. The Commonwealth Secretariat's CHESS scheme provides for a pilot project to provide a comprehensive range of services in academic publishing to one university (not necessarily African), the results of which would be monitored and made available to other universities.

Meanwhile, as the University of Dar es Salaam has demonstrated, once funds are available (in this case from the Dutch government) there are existing possibilities for rapidly reducing the backlog of unpublished manuscripts (37 titles at the University of Dar es Salaam Press). Moreover, by arrangement with the United States and Indian governments, PL140 countervalue funds in India have been released to enable some University of Dar es Salaam Press titles to be printed in India at a fraction of the local cost. This novel solution may be available to other African countries.

University library development and information technology

Along with the need for staff development, the plight of the university library systems drew most impassioned comment from African university people and donors. The virtual standstill in new book procurement in many libraries, and the running down of the journal collections, have come to symbolize the decline in the African universities. The knock-on effects include a drastic interference in scholarly production, since African academics worth their salt are unwilling to write for international journals on the basis of five year old literature, and some decline to attend international conferences for which they are too embarrassed to prepare papers. Scholars know they are out of touch. Students, by contrast, have no yardstick to measure the deficit in their own learning. Recent African graduates studying abroad have to struggle to enter the mainstream of current scholarship.

The situation has become substantially more grave in recent years since the rapid adoption of new technology for academic communication in the advanced countries. African universities are now not simply out of date in their library collections, they face the threat of being marooned on the other side of a technological divide. All the African universities visited for this inquiry were keenly aware of their predicament and anxious to get out of it at the earliest opportunity.

The Nigerian federal universities are embarking on a major rationalization of their library policy and upgrading of library technology under the IDA/NUC program. The NUC is establishing a Directorate for Library Affairs to coordinate the process. All universities have been requested to establish core textbook and

journal collections. The Committee of Vice Chancellors has been asked to designate selected libraries and disciplines for referral purposes, and they will hold a wider range of specialist volumes and subscriptions. A union list will give all universities access to the whole collection, and photocopiers are being installed to enable the referral libraries to provide an article photocopy service to the others on demand. Computer systems are being installed to handle the catalog and circulation, and the Committee of University Librarians is discussing the need to standardize on hardware for networking throughout the Nigerian university library system. Meanwhile, librarians are anxious to instal CD/ROM drives and readers so that they can subscribe by degrees to the standard research databases and continue to access the international scientific abstract services which are switching to the new technology. Along with the changes and the librarians' hopes is a radical sense of unease, a fear that the new library system will become technologically dependent while elementary support and backup services, like electric power and telephones, cannot be trusted.

The University of Zambia library also has plans to upgrade its technology, and will be able to do so under a FINNIDA education sector support program which targets library development and information technology. The library will instal a minicomputer to handle an integrated library system and provide access to electronic networks through the Computer Center's mainframe. CD/ROM drives and readers are also expected to be installed, with subscriptions to MEDLINE, AGRICOLA, COMPENDEX and ERIC.

CD/ROM technology has exceptional scope as a research and reference resource, partially substituting for conventional research library collections. Its significance for African universities is already high, in terms of access to bibliographical data, but before long entire libraries, selected to match programs of study, will be available on disk at affordable cost--once the development costs have been borne and copyright problems overcome. The evidence points strongly at this stage in favour of CD/ROM as an attainable and user-friendly technology, and African universities are eager to be assisted to obtain it.

Proposals on library development and information technology

The necessity for the computerization of African university libraries is overwhelming in order to arrest their slide away from the electronically communicating academic world. The libraries need to move from manual to computer-based information systems for cataloging and circulation. They need fax machines, minicomputers for network access and CD/ROM stations to access databases. As with the establishment of computer-based management information systems, it would be advisable to map the progress of all the African universities in this respect, and attempt to achieve a progressive program of donor support for installing the technology, acquiring appropriate software and arranging the training of library staff. The AAU, together with the Association of African University Librarians, UNESCO and the International Federation of Library Associations (IFLA), would be the appropriate bodies to spearhead the initiative. IFLA has already

made progress in this matter, and SAREC are supportive. There is every reason to believe that many other donors would wish to participate. IDRC and the Rockefeller Foundation have major interests in this area and have recently undertaken studies which would throw light on it.

The journal shortage is a pressing need which must be attended to even while the information technology initiative is under way. Nigeria's approach to rationalization of the journal collections might be illuminating to other parts of the region, although what Nigeria can hope to gain from economies of scale is more difficult to achieve across several countries. Nevertheless, a start has been made in the Southern African region with support from UNESCO and IDRC towards the creation of a union list of periodicals. Perhaps the next stage would be for the participating universities to decide on core collections and disciplinary specializations.

The urgent need to replenish journal and academic book collections has attracted the attention of many agencies including UNESCO, ICSU, AAAS, IAI, IAU and the Commonwealth Secretariat, to name only some of the most prominent. Some of the proposals have much in common. For example, CHESS intends to explore the provision of academic journals to African universities on the basis of agreements with publishers in all the main journal-producing countries to sell at run-on cost. IAI has a similar proposal for both books and journals. ICSU and CHESS intend to compile inventories of available schemes of assistance, ICSU in the scientific disciplines, CHESS across the board, including equipment and technical assistance as well as books and periodicals. IAI have already published a selective directory of book and journal assistance to universities in Africa (Africa, 60, 1, 1990), and launched it at a workshop of donors, publishers and Africanists.

The Ford Foundation has grant-aided the AAAS scheme to supply African university libraries at their request with journals donated by American learned societies. The IAI and CHESS proposals deserve support, so long as they do not overlap. There seems to be every reason to follow the IAI's lead and bring together the major interested donors, multilaterals and NGOs, along with academic publishers, in a workshop aimed at concerting resources and avoiding unnecessary duplication in book and journal support schemes.

6 RESEARCH ON HIGHER EDUCATION IN AFRICA

Items for a research agenda

This consultation was undertaken in order to throw light on the state of African universities, and to receive advice on whether and how the Foundations and other donors could help the universities more effectively to safeguard and strengthen their core functions in a period of severe economic duress and political uncertainty. Research is by universal agreement a core function of universities. Research on higher education has the added merit, if it is well targeted, executed, and disseminated, of contributing to the self-knowledge of university communities and improving the chances that the options available to decision-makers will be better understood, and debated with more insight.

It is not surprising that proposals for research on the African universities were made time and again in discussion with university people, government officials and donor representatives. The need to know is acute and the current research output in this field by African scholars is low. The topics listed below are not presented as a comprehensive agenda but bring together the proposals which have been reported in previous chapters:

- re-examine the developmental roles or missions of the African universities in the '90s (pp. 7, 9)
- re-examine donor policies toward the higher education sector in Africa (p. 9)
- mount a major study of the Nigerian IDA project in the federal universities, from inception to completion, conceived partly as an analysis of donor-government-university relations, and partly as a means of feeding back information into the policy process (pp 9, 22)
- undertake research on university-government relations, including funding mechanisms or intermediary bodies (p. 21), and on internal university governance, including studies of state intervention (p. 24)
- establish an annual series on students' quality of life, to be monitored by student researchers, as a guide to policy on student affairs including finance (p. 25)
- study student housing finance and management, as in Nigeria (p. 25)
- study the experience of women in academic administration, as in Zimbabwe (p. 30)

- mount a major international collaborative research project to monitor the consequences for universities of persistent underfunding or 'strangulation' and the effects of Structural Adjustment policies (p. 33)

- extend the AAU study on university-productive sector links (p. 34)

- analyze demand for postgraduate studies on a disciplinary basis (as for Economics undertaken by AERC) (p. 36)

- study problems and successes in research management (p. 43)

- support the creation, if the right leadership is available, of discipline-based research consortia on the AERC model, perhaps in Mathematical Sciences and Public Law for a start (p. 43)

- study the financing of postgraduate student mobility, linked to the selective development of research and postgraduate training capacity in the sub-regions (p. 49)

- commission sub-regional studies of the current state of academic publishing and its prospects (p. 52).

It would be invidious to suggest a rank-order among a list of topics which is itself rather selective and unsystematic, but it should be said that the proposals for macro-economic policy studies were repeatedly emphasized, especially those on the contemporary roles of African universities, the re-definition of donors' policies toward higher education, the impacts of underfunding and structural adjustment on the universities, and the burning issues of state-university relations, state-university-faculty-student relations, and university governance.

An evaluation of the Nigerian IDA project was considered likely to illuminate several of these issues, in view of its radical conception and scope, including innovations such as the accreditation of courses and departments, the application of 'minimum standards', new staffing norms, research and library selectivity or specialization, the computerization of library services and networking, and the establishment of MIS in university administrations.

The Nigerian project is seen by many as bearing heavily on the proper limits of donor intervention in national higher education policy through the conditionality mechanisms, and on the question whether African universities retain much control over their affairs if they are subject to the triple disciplines of intermediary bodies, powerful donors, and direct political intervention, not to speak of the ever-present discipline of inadequate grant allocations. The IDA project also invites examination of the relationship between management reform, the state's university funding policy, the size and distribution of university budgets,

and the qualitative rehabilitation of the universities.

The December 1990 AAU/DAE Working Group meeting in Accra noted that it is impossible to make a clinical division between the two broad areas of governance/management and quality enhancement, so it has chosen to devote its next meeting to these two themes, concentrating on research and postgraduate capacity under the 'quality' heading. The need for studies on research and postgraduate capacity received special attention during this consultation and generated the second main cluster of topics on the above list of research proposals. Again, the essential link between the two themes is manifest, since the organizational and managerial requirements of achieving a selective development of disciplines within a national or sub-regional system is high, as they are for installing a successful structure of postgraduate work and effective research management.

Although not referred to in the body of the report, several other research needs were suggested during the consultation which have a direct bearing on both qualitative and organizational improvement: investigating the appropriate organization of curricula and teaching methods to take account of increased undergraduate enrolments; the development of alternative models of delivery, including part-time night school courses and 'summer schools' with transferable course-credit arrangements to encourage flexible enrolments, and assessing alternative models of distance education at the university level and the pre-requisites for success under present conditions; mounting tracer studies of university graduates as a means of monitoring both admissions decisions and curricular relevance; and analyzing matriculation and admissions data as a guide to course developers.

Finally, in a class of its own is the proposal for a region-wide collaborative study of the academic labor market in Africa in view of the accelerated turnover of academic staff in many universities and the possible effects of the opening of South Africa to a legitimate trade in university staff.

Enhancing research capacity

It is clear that there is no shortage of research needs and ideas for projects. What is less clear is where research on higher education in Africa can best be done, and how African capacity for undertaking such research can be enhanced.

De facto, much research on higher education is done by or commissioned by international agencies, and there are at present several active research programs at this level which involve Africa. The World Bank has embarked on an elaborate world-wide study of higher education, which will include case studies from all geographic regions including Africa, and possibly the organization of regional seminars to discuss them. This initiative might result in a Bank policy paper on higher education. It might therefore be a vehicle through which a considerable part of the reconsideration of donor higher education policies would be transacted, in which case it would be appropriate for the African univer-

sity community, perhaps through the joint good offices of the AAU and the DAE Working Group on Higher Education, to be consulted and make its views known.

UNESCO's division of higher education has also embarked on a program of state of the art studies on higher education in each region, with the objective of publishing a world report on higher education. Not for the first time, UNESCO and the World Bank seem to be running on parallel tracks. UNESCO is able to call upon its extensive knowledge of African higher education through the Special Programme on African Higher Education under its Priority Africa program, and its current links with the AAU. The UNESCO International Institute for Educational Planning (IIEP) has itself launched a research project on finance, governance and administration of higher education around the world, concentrating on investigating and analyzing examples of successful innovation in management. Cases from Africa will be included.

These three major studies were not necessarily designed to enhance anyone's capacity for undertaking higher education research and will probably make little impression on African capacity, except for the individuals engaged as consultants.

SIDA has recently undertaken a rapid and innovatory 'minimum requirements' study in Mozambique, Tanzania and Zambia which aroused strong critical interest and appreciation at the AAU/DAE meeting in Accra.

By coincidence, three foundations have sponsored studies of the African universities at the same time. One is the present consultation. The other is Professor Alexander Kwapong's historical and contemporary exploration of nine African universities, supported by the Carnegie Corporation of New York, which should make a significant contribution to the debate on the developmental mission of the African universities in the'90s.

At the continental or regional level, the AAU has emerged as an active research promoter with its own portfolio of studies on higher education, led by its flagship examination of efficiency and cost-effectiveness in a sample of African universities. The AAU has also sponsored the sub-regional survey of postgraduate capacity in West Africa, through COREVP, a study of university-productive sector links, a report on equipment repair and maintenance needs, a survey of university curricula in Development Economics, in preparation for its textbook-writing project in this area, and a less elaborate study of university consulting capacity (pp. 11-12).

The AAU engages African consultants for these tasks on contract. It has no established research staff, and the question arises whether it should plan to have one in future. It was suggested in Chapter 1 that the vacant post of Program Officer (Documentation) be filled (this is essentially a research position), and that a new post of Director of Research be created, to exert quality control over the organization's current research projects. This would in effect create a Research Department of two officers plus consultants. The AAU might consider entering into a collaborative relationship with an institution like IIEP

which could give valuable technical support on research methodology and data analysis, and might wish to mount joint research projects from time to time.

There is a case for not turning the AAU into a mini-research institute, but enabling it to develop its leading role as an agenda-setter and coordinator of research done elsewhere. On the other hand, there may be a case for establishing an African institute of research on higher education, whether attached to the AAU, a university, or free-standing. The chances of attracting capital and core administrative funding for such a venture in present circumstances may be remote -- unless, that is, such a project were to qualify for support under the World Bank-led African Capacity Building Initiative whose secretariat is now becoming operational in Harare.

One or, preferably, more institutional bases in Africa for top quality research on African higher education are certainly needed, with sufficient assurance of continuity to be able to handle longitudinal studies and develop firm partnerships with university departments or researchers, institutes, intermediary bodies and university planners around the region and abroad. If donor support were forthcoming, existing research institutes could be invited to bid for funds to establish their capacity in this way. Without prejudging a competitive outcome, the Eastern and Southern African Universities Research Programme (ESAURP) in Dar es Salaam has many strong credentials to be a contender for such a role, as its sub-regional organization, longevity, success in grant-raising and publication record attest. As ESAURP staff will readily admit, several of their publications have been less analytical than descriptive, with the result that some donors hold back. Presumably, however, capacity building means just that, and ESAURP would seem to have large potential for growth in size and rigor.

Existing disciplinary-based research networks with proven track records should be encouraged to turn their interests to the study of higher education in Africa (some expressed interest during this consultation). This applies not just to Education networks, but Economics and Social Sciences networks as well, in view of the strong focus of many research proposals on labor markets, structural adjustment, cost-effectiveness, funding, student finance, governance, political intervention, student welfare, student politics, and management issues.

Two other institutions remain to be discussed, universities and ministries of education or higher education (together with their intermediary bodies). It should be axiomatic that all universities and all ministries or intermediary bodies need to be assisted to establish computerized MIS if they do not have them already. Once functioning these will generate substantial quantities of statistical data on finance, personnel and enrolments which will in time provide the raw material of much higher educational research all over the region. Each statistical or planning unit should have basic competence in data collection and analysis. Larger units will in time develop a more sophisticated research capacity, as the Nigerian NUC is doing. Some ministries may already have capacity for undertaking studies, like the

Ministry of Higher Education, Science and Technology in Zimbabwe, whose Research and Evaluation Unit is undertaking a tracer study of two cohorts of University of Zimbabwe graduates.

Such studies and others which are not a direct outgrowth of the ministry's or intermediary body's data handling or policy function, are more commonly undertaken by staff members in university research centers, or institutes or faculties of Education. There are endless variations in the organization of such bodies for research purposes, which it is unnecessary to pursue in this context. In any institutional arrangement, it is the individual initiative that counts above all. A department head in the Faculty of Education at the University of Dar es Salaam, for instance, is currently working on a project on higher education funding, another on 'gender and private monetary benefits among Tanzanian university graduates', and a third major research study of politically-directed innovations in higher education.

Decisions to concentrate sub-regional research on Education, as in other disciplines, in selected faculties and departments will no doubt give full weight to their members' commitment and productivity.

Finally, there is once more the attractive model of the AERC, a consortium of academic departments with donor support, dedicated to a thematically restricted but rigorous and constructive program of support for research projects put up by Economics departments, vetted collectively in workshops, and (if successful) nurtured to completion and publication. Earlier in the report it was suggested that the model should be used to help upgrade research in other disciplines, and Mathematical Sciences and Law were proposed as candidates (p. 43). It might not be too fanciful to give thought to the establishment of an African Higher Education Research Consortium, to work with selected university Education departments, planning units, research centers, intermediary bodies and, where appropriate, even ministries of higher education on an agreed program of research, whether culled from the proposals in this chapter or otherwise.

The issues and possibilities sketched in this chapter could perhaps be taken forward more systematically by the DAE Working Groups on Higher Education and on Educational Research and Policy Analysis.

BIBLIOGRAPHY

Adeyemi, B (1989). Corporate Performance in a Recession: The University of Ibadan Experience. Paper presented at the Seminar on Corporate Performance in a Recession (The Nigerian Experience), Faculty of Business Administration, University of Lagos, May 1989.

Africa Project Development Facility (1989). Report on Operations for the 12 Months Ended October 31, 1989. (International Finance Corporation, Executing Agency. Co-Sponsored by UNDP/ADB/IFC) APDF, Abidjan, Nairobi.

African Academy of Sciences (1990). Profiles of African Scientists. AAS, Nairobi.

African Academy of Sciences (monthly). Whydah Newsletter. AAS, Nairobi.

African-American Institute (1986). The African Graduate Fellowship Program 1963-80: Directory of Fellows. African-American Institute, New York.

African Development Bank, UNDP, World Bank (1990). The Social Dimensions of Adjustment in Africa: A Policy Agenda. World Bank, Washington DC.

African Development Experts, Steering Committee (1989). Ghana National Action Plan Workshop (1988/89): Final Report. World Bank/UNDP Programme on Developing African Consulting Capacity. ADEX, Accra.

Ajayi, S I, H J Pegatienan and M Mukras (1990). Graduate Training in Economics for Africans. AERC Special Paper 5. African Economic Research Consortium, Nairobi.

Aklilu Habte (1989). Support for Higher Education in Sub-Saharan Africa: Where Does the World Bank Stand? Information Note No 3. The World Bank, Africa Technical Department, Washington DC.

Allison, C (1990). University Education in Kenya: The Challenge of the 1990s. The World Bank, Washington DC.

Association of African Universities (1985). The Mbabane Programme of Action: The Response of the African Institutions of Higher Learning to Africa's Rapidly Deteriorating Economic and Social Conditions. AAU, Accra.

Association of African Universities (1987). Harare Statement on the Role of African Institutions of Higher Learning in Africa's Recovery and Development. AAU, Accra.

Association of African Universities (1987). Proceedings of the Workshop on University Resources and Finance Management held at the University of Benin, Lome, Togo in cooperation with CIDA and ECA. AAU, Accra.

Association of African Universities (1988). Directory of African Universities (5th Edition). AAU, Accra.

Association of African Universities (1989). AAU Plan of Activities 1989 - 1992. AAU, Accra.

Association of African Universities (1989). Report of the 7th General Conference, Cairo, 30 January - 2 February 1989. AAU, Accra.

Association of African Universities (1989). General Information on the AAU. AAU, Accra.

Association of African Universities (1989). Regional Cooperation in Commercialisation of Results of University Research in Africa. Paper Presented at a Conference on Commercialisation of R and D Results. Lagos, 23-27 April 1989. AAU, Accra.

Association of African Universities (1989). Study Tour of Brazil Report. AAU, Accra.

Association of African Universities (1989). Report of the Secretary-General January-December 1989. AAU, Accra.

Association of African Universities (1990). Report of the Secretary-General to the 42nd Meeting of the Executive Board, May 1990. AAU, Accra.

Association of African Universities (1990). Report of the AAU/ECA/UNDP Seminar on the Teaching of Development Economics in Africa, University of Ghana - Legon, March 1990. AAU, Accra.

Association of African Universities (1990). Report of Meeting of Officials Responsible for Supervison of Graduate Studies in Participating Universities, University of Ibadan, May 1990. AAU, Accra.

Association of African Universities (1990). Project on Cost Effectiveness and Efficiency in African Universities: Discussion Paper. AAU, Accra.

Association of Eastern and Southern African Universities (1984). Inter-University Cooperation in Eastern and Southern Africa: Report of the Vice-Chancellors' Workshop on Regional Cooperation Among Universities, University of Zimbabwe, June 1984. AESAU, Harare.

Auerhan, J et al (1985). Institutional Development in Education and Training in Sub-Saharan African Countries. World Bank Discussion Paper, Education and Training Series. The World Bank, Washington DC.

Bali, B K C [n d]. Cooperation Links and Agreements Between the University of Dar es Salaam and Other Universities. University of Dar es Salaam Cooperation Links and Projects Department, Dar es Salaam.

Bergdahl, B (1990). IFLA's Programme Advancement of Librarianship in the Third World ALP: A Proposal for the Future. Swedish Library Association, Stockholm.

Berry, J W (1990). International Education and Small Universities: The AUCC's Perspective. Association of Universities and Colleges of Canada, Ottawa.

Blomqvist, A (1987). Higher Education and the Markets for Educated Labour in LDCs: Theoretical Approaches and Implications. World Bank Discussion Paper, Education and Training Series. The World Bank, Washington DC.

Bond, S (1990). Commonwealth Higher Education Support Scheme: Institutional Management in Developing Commonwealth Countries. Commonwealth Secretariat Education Programme, London.

British Council, Higher Education Group, Education and Science Division (1989). Developing a Strategy for the Effective Implementation of Professional Development for Staff in Higher Education. Workshop Held in Sheffield and West Berlin, July - August 1989. Analysis and Evaluation of the Sheffield Programme. British Council, London.

British Council, Committee for International Cooperation in Higher Education, Education and Science Division (1990). Report on a Workshop on Cost Reduction and Recovery and Alternative Funding of Universities, Lusaka, September 1990. British Council, London.

British Council, Committee for International Cooperation in Higher Education, Education and Science Division (1990). Workshop on Cost Reduction and Recovery and Alternative Funding of Universities, Lusaka, September 1990. Papers for Session on Ghana: Developments in Higher Education 1987-1990. British Council, London.

Canadian International Development Agency (1990). Draft Education and Training Sector Paper. CIDA, Ottawa.

Clark, B R (1990). Basic Categories in Cross-nationa Understanding in Higher Education. Preliminary paper prepared for Ford Foundation meeting on Higher Education in Latin America, New York, November 1990 (monograph).

Commonwealth Secretariat (1986). Institutional Links in Higher Education in Commonwealth Africa. Final Report of a Pan-African Commonwealth Experts Meeting, Harare, June 1986. Commonwealth Secretariat Education Programme, London.

Commonwealth Secretariat (1990). Commonwealth Higher Education Support Scheme: Strengthening Capacity for Sustainable Development. Report of a Commonwealth Expert Group, June 1990. Commonwealth Secretariat Education Programme, London.

Commonwealth Secretariat (1990). Commonwealth Higher Education Support Scheme: Background Information on Donor Agency Activities. Commonwealth Secretariat Education Programme, London.

Coombe, C (1989). International Development Programmes in Higher Education. Commonwealth Secretariat Education Programme, London.

Coombe, C (ed) (1989). International Development Programmes in Higher Education: Annex (Special Papers). Commonwealth Secretariat Education Programme, London.

Coombe, T (1990). Supporting Zambia's Education Sector under Structural Adjustment. Report of the FINNIDA and Zambia Project Identification Mission January-February 1990. FINNIDA, Helsinki.

Court, D (1979). Higher Education in East Africa: A Review of Rockefeller Foundation Assistance. [Nairobi].

Court, D (1989). University Education. Rockefeller Foundation, Nairobi.

Court, D (1990). The Developent of University Education in Sub-Saharan Africa [draft]. Rockefeller Foundation, Nairobi.

DAE Donors to African Education [Quarterly Newsletter] [No. 1] November 1990. World Bank, Washington DC.

Diambomba, M (1989). Universities and Development in Africa: Problems and Challenges for Planning, in F Caillods (ed), The Prospects for Educational Planning. International Institute for Educational Planning, Paris.

Dodoo, R E (1989). Report on Equipment Maintenance and Repair in Sub-Saharan African Universities. Report submitted to the Association of African Universities. University of Science and Technology, School of Engineering, Kumasi.

Eastern and Southern African Management Institute [n d]. ESAMI: A Brief on What It Does and How It Works. ESAMI, Arusha.

Eastern and Southern African Management Institute [n d]. ESAMI Consultancy Services. ESAMI, Arusha.

Eastern and Southern African Management Institute [n d]. ESAMI 1990 Training Programme. ESAMI, Arusha.

Eastern African Universities Research Project (1982). Manpower and Development in Eastern Africa. Resume of the Report and Policy Recommendations on the Impact of Overseas Training on Development. Heinemann, Nairobi.

Eastern and Southern African Universities Research Programme (1983). The Inventory of Universities and Selected Tertiary Institutions in Eastern and Southern African Countries. ESAURP, Dar es Salaam.

Eastern and Southern African Universities Research Programme (1985). University and Tertiary Institution Capacity. Report of a Conference held in Harare, Zimbabwe, December 1985. ESAURP, Dar es Salaam.

Eastern and Southern African Universities Research Programme (1987). University Capacity Utilisation in Eastern and Southern Africa. A Resume of the Report Overview, Conclusions and Policy Recommendations. ESAURP, Dar es Salaam.

Eastern and Southern African Universities Research Programme (1987). Recommendations and What Next? Arusha Conference Proceedings, September-October 1987. ESAURP, Dar es Salaam.

Eastern and Southern African Universities Research Programme (1990). A Brief History of ESAURP's Work to Date. Paper No 12. ESAURP, Dar es Salaam.

Eastern and Southern African Universities Research Programme (1990). ESAURP Consultative Group Report. ESAURP, Dar es Salaam.

Eastern and Southern African Universities Research Programme (1990). Progress and Development. ESAURP, Dar es Salaam.

Eisemon, T O and C H Davis (1990). Strengthening University Research and Training Capacities in Sub-Saharan Africa (draft).

Ejiogu, A M and E Duro (eds) (1987). Emergent Issues in Nigerian Education (Volume 1). Joja Educational Research and Publishers, Lagos.

Ekong, D (1990). Potential and Constraints of Regional Inter-university Cooperation in West and Central Africa: The Challenges of Francophone and Commonwealth. Paper commissioned by the International Development Research Centre, for the Annual IDRC Regional Meeting, Senegal, April 1990. AAU, Accra.

Eshiwani, G S (1990). Implementing Educational Policies in Kenya. Discussion Paper No 85, Africa Technical Department Series. The World Bank, Washington DC.

Federal Ministry for Economic Cooperation, Federal Republic of Germany (1979). Principles of Development Policy as Applied to Cooperation with Universities in Developing Countries. BMZ, Bonn.

Fine, J C (1990). Graduate Education in Economics for Africans. African Economic Research Consortium, Nairobi.

Gaidzanwa, R B (1989). The Experience of Women in Post-Revolutionary Reconstruction: Women in Higher Education Administration. Human Resources Research Centre, Working Paper No 2. University of Zimbabwe, Harare.

German Foundation for International Development (1985). Promotion of Research-Oriented Education and Training at African Universities. Summary Report of an International Conference, Nairobi, September 1985. DSE, Bonn.

German Foundation for International Development (1987). New Approaches in University Staff Development: Training for Efficiency in Teaching, Research and Management. Report on the International Conference, Berlin, December 1987. DSE, Bonn.

German Foundation for International Development (1988). Staff Development in Eastern and Southern African Universities. DSE, Bonn.

German Foundation for International Development (1989). Education, Science and Documentation Centre: Brief Outline of Objectives and Activities. DSE, Bonn.

German Foundation for International Development (1989). Annual Report, 1988. DSE, Bonn.

German Foundation for International Development (1990). Towards Academic and Professional Excellence in Higher Education (Part 1). Report on the Sub-Regional Workshop in Harare, May-June, 1989. DSE, Bonn.

Ghana, Management Development and Productivity Institute (1989). Management Training Programme 1990. MDPI, Accra.

Ghana, Ministry of Education and Culture (1987). University Rationalisation Study, Volume 1, Interim Report. University Rationalisation Committee, Accra.

Ghana, Ministry of Education and Culture (1988). University Rationalisation Study, Volume 2, Final Report. University Rationalisation Committee, Accra.

Ghana, Ministry of Education (1989). Special Accreditation Study: Interim Report. Ministry of Education, Accra.

Giorgis, G W and M E Armah (1990). University Consultancy Centres in Ghana: An Institutional Development Study. Ghana, Ministry of Mobilization and Social Welfare/United Nations Development Programme, Accra.

Goodwin, C and M Nacht (1990). The Forgotten Payoff: Support for International Educational Exchange Among American Private Foundations. Report to the American Council of Learned Societies, and the John D and Catherine T MacArthur Foundation (monograph).

Hagan, K (1989). World Bank/UNDP Programme on Developing African Consulting Capacity. Regional Workshop, Abidjan, 29 November - 1 December, 1989. Draft report. [Accra].

Harvard Graduate School of Education Bulletin, Volume XXXIV, Number 3, Summer 1990. Special Issue. Higher Education.

Higher Education Policy, Volume 2, Number 2, 1989. Special Issue. Problems of Higher Education in Latin America. International Association of Universities, Paris.

Hinchliffe, K (1985). Issues Related to Higher Education in Sub-Saharan Africa. World Bank Staff Working Paper No 780. The World Bank, Washington DC.

Hodges, T (1990). Planning an Economics Training Strategy for Francophone Africa. Paper prepared for the Ford Foundation.

Institute for International Education (1989). Donor Support for Higher Education in Africa. Phase One of a Report to the Rockefeller Foundation (2 Volumes). New York.

International African Institute (1990). The International African Institute and the Book Famine in Africa. IAI, London.

International African Institute (1990). Africa Books Support Scheme: A Feasibility Study. IAI, London.

International Development Research Centre (1988). Eastern and Southern Africa Network Coordinator's Review. Proceedings of a Workshop Held at Nairobi, Kenya, May 1988. IDRC, Nairobi.

International Development Research Centre (1989). Strategic Choices for Sub-Saharan Africa: Discussion Paper. IDRC, Ottawa.

International Institute for Educational Planning (1990). Fifth Medium-Term Plan (1990-95). IIEP, Paris.

International Institute for Educational Planning (1990). IIEP Proposed Programme for 1990. IIEP, Paris.

International Institute for Educational Planning (1990). IIEP Report of Activities in 1989. IIEP, Paris.

International Institute for Educational Planning (1990). Improving Effectiveness of Higher Education Institutions: Studies of the Management of Change (IIEP Research Programme). IIEP, Paris.

International Institute for Educational Planning (1990). Improving Effectiveness of Higher Education Institutions: Studies of the Management of Change (Information Base). IIEP, Paris.

International Institute for Educational Planning (1990). Improving Managerial Effectiveness in Higher Education Institutions: An IIEP Research Proposal. IIEP, Paris.

International Institute for Educational Planning (1990). Changes in Higher Education Management. IIEP, Paris.

International Journal of Educational Development (1989). Special Theme: The Development of Higher Education in the South Pacific, M Crossley, ed. Pergamon Press, Oxford.

Jiminez, E and Jee-Peng Tan (1987). Selecting the Brightest for Post-Secondary Education in Colombia: The Impact of Equity. World Bank Discussion Paper, Education and Training Series. The World Bank, Washington DC.

Kashoki, M E (1990). Forward Hand in Hand with the Business Community. Address by the Vice-Chancellor of Copperbelt University to the Kitwe Business Community, 16 May 1990. Ndola.

King, E (1990). Educating Girls and Women: Investing in Development. The World Bank, Washington DC.

King, K (1985). Higher Education for What: Some Propositions about Regional and International Collaboration in the Sphere of Higher Education in Developing Countries. Paper presented to the 1985 Symposium of the Nordic Association for the Study of Education in Developing Countries on North-South Education Research Cooperation and Dissemination of Research Results. IIE/SAREC/SIDA, Stockholm.

King, K (1988). Aid and Educational Research in Developing Countries: The Role of the Donor Agencies in the Analysis of Education. Centre of African Studies, Edinburgh University, Edinburgh.

King, K (1990). Aid and Education for All. Paper Written as Part of Background Material for the Commonwealth Conference of Education Ministers, November 1990, Barbados. Centre of African Studies, University of Edinburgh, Edinburgh.

King, K (1990). The Challenge of Education for All to Higher Education in East Africa (draft).

Kwapong, A and B Lesser (1990). Capacity Building and Human Resource Development in Africa. Report on a Roundtable Convened by the Lester Pearson Institute for International Development, Dalhousie University, September 1989. Lester Pearson Institute for International Development, Halifax.

Lo, H M and J-C Abolo (1989). Reflection Days on the Development of Human Resources and the Strengthening of Research Capacity in Africa, April 1989. IDRC Fellowship and Awards Division, Dakar.

Maliyamkono, T L (ed) (1980). Policy Developments in Overseas Training. ESAURP, Dar es Salaam.

Maliyamkono, T L et al (1982). Training and Productivity in Eastern Africa. Report of the Eastern African Universities Research Project on the Impact of Overseas Training on Development. Heinemann, Nairobi.

Millot, B et al (1987). L'aide exterieure a l'education en Afrique sub-saharienne. World Bank Discussion Paper, Education and Training Series. The World Bank, Washington DC.

Moodie, G C (ed) (1986). Standards and Criteria in Higher Education. Society for Research into Higher Education and NFER-NELSON, Guildford, Surrey.

Ngara, E and A Morrison (1989). Literature, Language and the Nation. Proceedings of the Second General Conference of the Association of University Teachers of Literature and Language (ATOLL) held at the University of Zimbabwe 24-28 August 1987. ATOLL in association with Baobab Books, Harare.

Nigeria (1989). Views of the President of the Federal Republic of Nigeria on the Visitation Panel Report in the Affairs of University of Ibadan, 1975-85. Federal Government Printer, Lagos.

Nigeria, Federal Ministry of Education (1989). National Policy on Education (revised). NERDC Press, Lagos.

Nigeria, Federal Ministry of Science and Technology (1989). Fact Sheet on the Federal Ministry of Science and Technology and Its Research Institutes/Parastatals, Volume 1 (The Federal Ministry of Science and Technology). FMST, Lagos.

Nigeria, Federal Ministry of Science and Technology (1990). Fact Sheet on the Federal Ministry of Science and Technology and Its Research Institutes/Parastatals, Volume 2 (Agricultural and Veterinary Research Institutes). FMST, Lagos.

Nigeria, Federal Ministry of Science and Technology (1990). Fact Sheet on the Federal Ministry of Science and Technology and Its Research Institutes/Parastatals, Volume 3 (Medical, Pharmaceutical, Animal Health and Industrial Research Institutes). FMST, Lagos.

Nigeria, National Universities Commission (1987). Resource Management in the University System. Proceedings of the NUC/CVC/BC International Seminar, ABU November 1987.

Nigeria, National Universities Commission (1988). A Special Bulletin on Research Funds Allocation to Federal Universities. NUC, Lagos.

Nigeria, National Universities Commission (1989). A Special Bulletin on Research Funds Allocation to Federal Universities. NUC, Lagos.

Nigeria, National Universities Commission (1988). Annual Report 1988. NUC, Lagos.

Nigerian Academy of Science (1977). Year Book 1977. Nigerian Academy of Science, Ibadan.

Nigerian Association of Academic Planners (Planning for Accountability and Survival in Higher Education) (1990). Notes of a Meeting of the Planning Committee for the Proposed Association of Academic Planners, 6 March 1990. University of Ibadan, Ibadan.

NORRAG News, No 8 (June 1990). Special Issue. What Happened at Jomtien and the Beginnings of Follow-up, K King, ed. Northern Research Review Advisory Group, Edinburgh/Stockholm.

Nwa, E U and H Pascall (1990). Graduate Education and R and D in African Universities. AAU, Accra.

Odhiambo, T R (1990). Designing a New Science-Led Development in Tropical Africa. Opening Address to the Summer Institute for African Agricultural Research (SIAAR), University of Wisconsin, July 1990. International Centre of Insect Physiology and Ecology (ICIPE), Nairobi.

Olubummo, A (1985). What Does It All Add Up To? Valedictory Lecture, Faculty of Science, University of Ibadan, July 1985. Nigerian Industrial Arts and Crafts, Akure.

Paul, S et al (1989). Building Capacity for Policy Analysis. Policy, Planning and Research Working Papers. The World Bank, Washington DC.

Pegatienan, H J (1990). Graduate Training in Economics in Francophone West and Central Africa. AERC Special Paper 7. African Economic Research Consortium, Nairobi.

Priestley, C (1990). Commonwealth Higher Education Support Scheme: Commonwealth Books, Materials and Library Support Programmes. Commonwealth Secretariat Education Programme, London.

Ransom, A (1988). Financing Higher Education in Francophone West Africa. EDI Policy Seminar Report No 12. The World Bank, Washington DC.

Roberts, K H (ed) (1989). Regional Postgraduate Program in Information Science in Anglophone Africa: Identification of an Appropriate Location. Report of a Joint UNESCO/IDRC Mission. IDRC, Ottawa.

Robertson, N [n d]. The Nigerian Universities. [United States Information Service, Lagos].

Rockefeller Foundation (1990). Donors to African Education Working Group on Female Participation Meeting, New York, 22 January 1990. Rockefeller Foundation, New York.

Schlette, R (1989). The German Foundation for International Development (DSE) and Its Relations with Universities in Africa. Zimbabwe Journal of Educational Research, Vol 1 (1989), pp 263-268.

Schwartzman, S (1990). Structure, Governance and Financing of the Latin America University: The Observer's Viewpoint. Paper prepared for the Ford Foundation meeting on Higher Education in Latin America, New York, November 1990 (monograph).

Schwartzman, S (1990). Growth, Differentiation and Policies for Higher Education in Latin America. Paper prepared for the Ford Foundation meeting on Higher Education in Latin America, New York, November 1990 (monograph).

Schwartzman, S [n d]. Higher Education in Non-European Societies (draft).

Shittu, M (1990). National University Reform and Rationalization: The Nigerian Experience. Paper Presented at the Meeting of the Working Group on Higher Education of [the Donors to African Education]. National Universities Commission, Lagos.

Shiundu J O and P P W Achola (1990). Proposal for Sabbatical Scheme in Regional Universities and Research Institutions Within Eastern and Southern Africa Region. Kenyatta University, Bureau of Educational Research, Nairobi.

Simpson, D and C Sissons (1989). Entrepreneurs in Education: Canada's Response to the International Human Resource Development Challenge. IDRC Technical Study No 62e. IDRC, Ottawa.

Singh J and H Mukherjee (1990). Commonwealth Higher Education Support Scheme: The Commonwealth Staff Development Programme. Commonwealth Secretariat Education Programme, London.

Special Program for African Agricultural Research (1987). Guidelines for Strengthening National Agricultural Research Systems in Sub-Saharan Africa. The World Bank, Washington DC.

Suleiman, A (1990). University Education in Nigeria (personal communication) [The World Bank, Lagos].

Sutton, F X (1967). The Importance of Higher Education to Development. Paper presented to the conference on 'Higher Education and the International Flow of Manpower: Implications for the Developing World'. University of Minnesota, April 1967 (monograph).

Sutton, F X (1970). African Universities and the Process of Change in Middle Africa. Paper presented to a conference on 'The Tasks of Universities in a Changing World', University of Notre Dame, South Bend, Indiana, February 1970 (monograph).

Svendsen, K E (1990). African Economic Research Consortium: Research, Training and Related Activities from August 1988 to January 1990. An Evaluation. Centre for Development Research, Copenhagen.

Swainson, N (1990). Tertiary Education and Training Needs for Post-Apartheid South Africa. Paper prepared for the Commonwealth Secretariat. Commonwealth Secretariat, London.

Swedish Agency for Research Cooperation with Developing Countries (1990). SAREC Annual Report 1988/89. SAREC, Stockholm.

Takala, T (1990). Review and Evaluation of the Eastern and Southern African Universities Research Programme. FINNIDA, Helsinki.

Tanzania, Office of the President, Planning Commission (1990). Medium and Long-Term Issues for Tanzania. Planning Commission, Dar es Salaam.

Tanzania, Institute of Finance Management (n.d.). Report on Computer Course Requirements and Project Recommendation. IFM, Dar es Salaam.

Tebicke, H L (1987). Research Environment in Zambia. A Study of the State and Conditions of Experimental Research in the Agricultural, Engineering, Life and Physical Sciences in Zambia. SAREC, Stockholm.

Tebicke, H L (1987). Research Environment in Zimbabwe. A Study of the State and Conditions of Experimental Research in the Agricultural, Engineering, Life and Physical Sciences in Zambia. SAREC, Stockholm.

Tembo, L P et al (1985). The Development of Higher Education in Eastern and Southern Africa. ESAURP/Hedaya Educational Books, Dar es Salaam.

Uganda, Ministry of Education (1989). Education Policy Review Commission Report. Ministry of Education, Kampala.

UNDP/Project of the Governments of All African States (1988). Project Document: Strengthening the Capabilities of African Universities. RAF/88/006/A/01.

UNDP/EDI/ILO (1989). Program for Strengthening Training Institutions in Africa. EDI, Washington.

UNESCO (1988). Special Programme for the Improvement of Higher Education in Africa. UNESCO, Dakar.

UNESCO [1988]. Malawi: Higher Education Problems, Needs and Priorities. UNESCO, Paris. [restricted]

UNESCO [1988]. Zambia: University Education and National Needs. UNESCO, Paris [restricted].

UNESCO, Educational Financing Division (1988). Zambia: University Education and National Development. UNESCO, Paris [restricted].

UNESCO (1989). Priority: Africa. Programme of Action Proposed by the Director-General (1990-1995). UNESCO, Paris.

UNESCO (1989). Recapitulatory Table of Activities Relative to Higher Education. UNESCO, Paris.

UNESCO, Division of Statistics on Education, Office of Statistics (1989). Third Level Education: African Students Abroad, 1970-1985. UNESCO, Paris.

UNESCO Regional Office for Education in Africa (1988). Special Programme for the Improvement of Higher Education in Africa. BREDA, Dakar.

UNESCO/Association of Commonwealth Universities (1989). Higher Education Learning Resource Materials, Books and Journals: The Needs of Universities in Developing Countries. Papers on Higher Education No 36. UNESCO, Paris.

UNESCO/International Council for Distance Education (1988). Higher Level Distance Education and the Needs of Developing Countries. Papers on Higher Education No 28. UNESCO, Paris.

United Kingdom, Overseas Development Administration (1989). Report of a Review of ODA Support to University Education in Zambia, March 13-22, 1989. ODA British Development Division in Southern Africa.

United Nations Development Programme (1990). Mid-Term Evaluation of the UNEDIL Program to Strengthen African Training Institutions: Report of the Evaluation Mission. UNDP, New York.

United States Agency for International Development (1988). Three Nigerian Universities and Their Role in Agricultural Development. USAID, Washington DC.

University of Dar es Salaam (1988). Proceedings of the Donors Conference, December 1987. University of Dar es Salaam.

University of Ibadan (1979). Abstracts of Theses and Dissertations 1964-1975. University of Ibadan Library.

University of Ibadan (1988). Digest of Statistics, Volume 3, Number 1. Planning Division, University of Ibadan.

University of Ibadan (1989). Ibadan University Theses and Dissertations 1974-1986. Kenneth Dike Library, University of Ibadan.

University of Nairobi (1989). Details of Programme Review and Forward Budget, 1989/90 - 1992/93. University of Nairobi.

University of Nairobi (1989). Financial Requirements for the Next Five Years, 1990/91 - 1994/95. University of Nairobi.

University of Wisconsin Program in University Administration (1976). Administering New Universities: A Survey of the State of the Art. Report to the Ford Foundation. University of Wisconsin -- Extension, Institute of Governmental Affairs, Madison.

University of Wisconsin Program in University Administration (1975). Training University Administrators: Anatomy of a Project. Report to the Ford Foundation. University of Wisconsin -- Extension, Institute of Governmental Affairs, Madison.

University of Zimbabwe (1990). Faculty of Veterinary Science Annual Report 1989. University of Zimbabwe, Harare.

Winkler, D R (1990). Higher Education in Latin America: Issues of Efficiency and Equity. Discussion Paper No 77. The World Bank, Washington DC.

[Wohlgemuth, L] (1990). University Minimum Requirements - The Cases of Mozambique and Tanzania. SIDA, Stockholm.

Woodhall, M (1987). Establishing Student Loans in Developing Countries: Some Guidelines. World Bank Discussion Paper, Education and Training Series. The World Bank, Washington DC.

World Bank (1988). Education in Sub-Saharan Africa: Policies for Adjustment, Revitalisation and Expansion. The World Bank, Washington DC.

World Bank (1989). Policy Reform in Education and Training in Africa. Information Note No 4. The World Bank, Africa Technical Department, Washington DC.

World Bank (1989). Sub-Saharan Africa: From Crisis to Sustainable Growth. The World Bank, Washington DC.

World Bank (1990). Update on Implementation of the World Bank Policy Study: Education in Sub-Saharan Africa. Information Note No 5. The World Bank, Africa Technical Department, Washington DC.

World Bank (1990). Report of the Review Team for the Third External Periodic Review of the International Centre of Insect Physiology and Ecology (ICIPE). The World Bank, Nairobi.

World Bank (1990). A Framework for Capacity Building in Policy Analysis and Economic Management in Sub-Saharan Africa. The World Bank, Africa Region, Washington DC.

World Bank (1990). Work Programme on Higher Education: Initiating Memorandum. The World Bank, Washington DC.

World Bank (1990). Report and Recommendation of the President of the International Development Association to the Executive Directors on a Proposed Credit of SDR 93.5 m to the Federal Republic of Nigeria for a Federal Universities Development Sector Adjustment Operation. The World Bank, Washington DC. [restricted]

[World Bank] (1990). Task Force of Donors to African Education. Report on Meeting July 23-25, 1990. World Bank, Washington, DC.

World Bank/International Monetary Fund (1988). Proposals for Enhancing Assistance to Low-Income Countries that Face Exceptional Difficulties. Development Committee Paper No 16. Washington DC.

World Bank/International Monetary Fund (1990). Progress of Initiatives to Benefit Sub-Saharan Africa. Development Committee Paper No 21. Washington DC.

World Bank/International Monetary Fund (1990). Problems and Issues in Structural Adjustment. Development Committee Paper No 23. Washington DC.

Zambia, Ministry of Higher Education, Science and Technology (1989). New Policy Measures for the Financing of Higher Education. Lusaka.

Za'rour, G I (1988). Universities in Arab Countries. Policy, Planning and Research Working Paper. The World Bank Population and Human Resources Department, Washington DC.

Zimbabwe [Office of the President] (1989). Report of the Commission of Inquiry into the Establishment of a Second University or Campus. (P R C Williams, Chairman). Government Printer, Harare.

Zymelman, M (1990). Science, Education and Development in Sub-Saharan Africa. Technical Paper No 124, Africa Technical Department Series. The World Bank, Washington DC.